

**TONS OF  
TIPS**  
FOR YOUR  
MACHINE  
see pages  
16-25,  
31-33,  
44-45

Issue 145 • 17th August 1991 • 88p

# NEW **COMPUTER EXPRESS**

**FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE**

## **AMIGA**



### **LA SCALA**

The Amiga best seller  
has been upgraded

## **ATARI**



### **THE NEXT ST**

Will it be the STPC or  
the STMAC? Find out...

## **GAMES**



### **NEBULUS 2**

Is this the worst  
sequel ever made?

# **YOU CAN'T GO TO THE SHOW!**

**ECES: Europe's biggest computer leisure  
expo is closed to the public – page 4**

## **FRAUD: bosses blamed**

**Computer crime: is it on the increase?  
Find out on pages 54 & 55**



The Philips PCL203. Are  
you paying through the  
nose for a name? – p53

## **3-D Calc**



An ST spreadsheet  
for under £30 – p49



# COMPUTER MATES LTD

TEL. 0753 631101 (3 Lines)

FAX. As Above



CHEQUES/POSTAL ORDERS TO:

COMPUTER MATES LTD.

PINWOOD STUDIOS

IVER HEATH

BUCKS SL0 0NH

ALL PRICES INCLUDE VAT & CARRIAGE



## FED UP WAITING?

WE GUARANTEE 48 HOUR  
DELIVERY TO YOUR DOOR  
AT NO EXTRA COST!!  
WITH 90% OF PARCELS  
ARRIVING NEXT DAY!

### MITSUBISHI BRANDED THE THREE DIAMOND DISKETTES

#### M-2D

5 1/4" DSD

1 BOX	£6.00
2-5 BOXES	£5.50
6-10 BOXES	£5.00

#### M-2HD

5 1/4" DSHD

1 BOX	£8.95
2-5 BOXES	£8.15
6-10 BOXES	£7.60

#### MF-2DD

3 1/2" DSD 1MEG

1 BOX	£8.65
2-5 BOXES	£8.15
6-10 BOXES	£7.10

#### MF-2HD

3 1/2" DSHD 2MEG (1.44)

1 BOX	£15.75
2-5 BOXES	£14.70
6-10 BOXES	£13.65

**FREE GIFTS WHEN YOU BUY MITSUBISHI BRANDED DISKETTES!**

1 BOX ..... **FREE MOUSEMAT**    5 BOXES ..... **FREE 50 CAP BOX**    10 BOXES ..... **FREE 100 CAP BOX**

COMPUTER MATES — THE FIRST MAIL ORDER SUPPLIER OF MITSUBISHI BRANDED DISKETTES

### QUICKSHOT JOYSTICKS

SEGA/ATARI/MSX/  
AMSTRAD/COMMODORE

MAVERICK I	£14.50
FLIGHT GRIP	£11.50
PYTHON I	£11.50
STARFIGHTER I	£35.00
(Remote Control/Wireless)	
ATARI/COMMODORE	
APACHE I (Digital)	£9.00
TURBO II	£11.50
APPLE 2E/C, IBM PC	
AT/XT	£14.50

MOUSE MATS	£2.50
MOUSE HOLDERS	£2.00
HEAD CLEANERS 3.5" or 5.25"	£2.00
MINI VACUUM	£6.00
CLEANING SOLUTION	£2.00

### 3 1/2" MITSUBISHI BULK LIFETIME GUARANTEED

3 1/2" DSD	3 1/2" DSHD
50 DISKS	£18.00
100 DISKS	£35.00
200 DISKS	£68.00
500 DISKS	£152.00
1000 DISKS	£295.00
INCLUDING LABELS	

### 5 1/4" BULK DISKS

LIFETIME GUARANTEED. PACKED IN 25s INCLUDING LABELS

48 TPI		96 TPI		HIGH DENSITY	
25 DISKS	£8.15	25 DISKS	£8.75	25 DISKS	£13.50
50 DISKS	£15.50	50 DISKS	£16.50	50 DISKS	£25.50
75 DISKS	£21.50	75 DISKS	£23.00	75 DISKS	£37.50
100 DISKS	£27.50	100 DISKS	£28.50	100 DISKS	£48.00

### COLOURED DISKS

DSD WITH LABELS  
RED, YELLOW, ORANGE,  
GREEN, WHITE

	5 1/4"	3 1/2"
10 DISKS	£4.00	£4.50
25 DISKS	£8.75	£10.75
50 DISKS	£16.50	£21.00
100 DISKS	£28.50	£40.00

14" MONITOR STAND SWIVEL WITH HANDY KNOB	£13.50
80/132 PRINTER STAND WITH PAPER TRAY	£9.00
A4 DESKTOP COPYHOLDER	£7.50

## BLUE BOX PRODUCTS

ALL BLUE BOX PRODUCTS ARE COMPLETELY PACKAGED IN  
PRINTED CARDBOARD BOXES WITH LABELS. 100% GUARANTEED.

#### BAMBI-2DD

25 DSD 3 1/2" IN 25  
CAP STORAGE BOX

1 BOX	£14.00
2+	£13.00
5+	£11.00

#### MF-2DD 30's

30 DSD 3 1/2"

1 BOX	£14.00
2+	£13.00
5+	£11.00

#### MF-2DD 10's

10 3 1/2" DSD

1 BOX	£6.00
2+	£5.00
5+	£4.50

#### M-2D 48 TPI 10's

10 DSD 5 1/4"

1 BOX	£4.25
2+	£3.75
5+	£3.25

#### M-2DD 96 TPI 10's

10 DSD 5 1/4"

1 BOX	£4.75
2+	£4.25
5+	£3.75

#### BAMBI-2HD

25 DSHD 3 1/2" IN 25  
CAP STORAGE BOX

1 BOX	£21.00
2+	£20.00
5+	£18.50

#### MF-2HD 30's

30 DSHD 3 1/2"

1 BOX	£21.00
2+	£20.00
5+	£18.50

#### MF-2HD 10's

10 3 1/2" DSHD

1 BOX	£8.50
2+	£8.00
5+	£7.00

#### M-2HD 10's

10 DSHD 5 1/4"

1 BOX	£6.50
2+	£6.00
5+	£5.00

#### DATA CARTRIDGES

VERBATIM DATA LIFE

DC2000	£17.80
DC300XLP	£17.80
DC800A	£19.60
DC6150	£21.50

## STORAGE BOXES

3 1/2"	5 1/4"
120 CAP	£9.50
100 CAP	£7.90
80 CAP	£7.50
50 CAP	£6.50
40 CAP	£6.00

ALL ABOVE BOXES LOCKABLE + 2 KEYS

£2 OFF BOXES WHEN ORDERING 100 DISKS OR MORE

10 CAP	£1.50	10 CAP	£1.50
5 CAP	£1.15	5 CAP	£1.00
1 CAP	£0.50		

**Call SAM or PAT Now!**  
**on 0753 631101**

## SORRY! SORRY! SORRY!

WE DO NOT PRICE MATCH BUT WE DO GIVE  
QUANTITY DISCOUNT, WITH SERVICE, QUALITY  
AND BACKING FROM THE LARGEST DISK  
MANUFACTURERS IN THE WORLD. IN ADDITION  
OVER 200 LINES OF PERIPHERALS IN STOCK. ASK  
FOR OUR COLOUR CATALOGUE & PRICE LIST  
WITH YOUR ORDER OR SEND 22p S.A.E.

**CALL 0753 631101**





• Jake and Elroy have always got into trouble in the past, and now they can do so on your computer with *The Blues Brothers* from Titus

## It's a beautiful game Bob!

Rock till you drop in *The Blues Brothers*, the computer game.

In the game you have to set up the perfect conditions for the Blues Brothers' concert. The only thing is, you have to get Jake and Elroy there.

The *Blues Brothers* game features five scrolling levels of chaos and confusion in such varied surroundings as department stores, prison cells and sewers.

The music was one of the highlights of the movie, and the game too features a computerised rendition of the original *Blues Brothers* soundtrack.

Other features include over 300 different screens of graphics and multi-directional scrolling.

The game which is as yet unpriced will be out for the ST, Amiga and PC later this year. ■

## Advent of the slim drive



• Could a floppy drive be any thinner than this? The new, sleek MF355E from Mitsubishi is designed for notebook and laptop PCs

Computers look set to become even smaller thanks to a new Mitsubishi-designed floppy drive which is barely larger than the disks you put in it.

The MF355E is a 1.44Mb 3.5-inch drive designed for use with notebook and laptop PCs. It is just

14.8mm high, which is less than the diameter of a 5p coin, but it conforms to the width standard of notebook computers (96mm) and weighs 185g.

Not yet commercially available, the MF355E will, according to the company, cost no more than a standard 3.5-inch disk drive. ■

## Printer price slashed

NEC has reduced the price of its 24-pin wide carriage P70 printer by £100 to £590.

The P70 can print over 136 columns, and up to A3 paper size. Speeds range from 100 character per second (cps) for letter quality to 300 cps for draft quality.

The printer comes with 10 resident fonts and Windows 3.0 driver software.

If you want to get hold of one of this amazingly low price, contact NEC on 081-999 9111. ■

## Bargains for the ST

Frontier Software has reduced the price of most of its Atari ST-related products, some by as to 45 per cent.

These include the Xtra-RAM ST and Xtra-RAM STE memory upgrades and the Forgit-Me-Clock II clock cartridge.

The two different RAM cards are for the ST and STE series of machines, respectively, and can be installed by the user in about an hour. Some soldering may be needed for owners of newer STs, however.

The unpopulated Xtra-RAM ST card has been reduced from £34.99 to £29.99, while the 8.9Mb version is now £59.99 instead of £69.99. The 2Mb

version is now reduced from £59.99 to £159.99.

Forgit-Me-Clock II is a cartridge that plugs into an ST or STE and automatically sets the system and keyboard clocks as soon as the computer is turned on. Usually both clocks have to be set manually.

The cartridge also has a pass through port so that other cartridges can be plugged in 'on top' of it; other similar cartridges lie up the port completely, the company claims.

The Forgit-Me-Clock II is now priced at £24.99 instead of £29.99.

For further information, call Frontier Software on 0423 567148 or 0423 520577. ■

Europe's biggest computer-related expo runs

# DOORS SHUT

News broke late last week concerning the forthcoming European Computer Entertainment Show (ECES) which was to be held at Earl's Court 2 between 6 and 8 September.

The show, which last year attracted thousands of members of the public, and was headed as a major success, is this year to be a trade only event.

### CHANGE OF PLAN

The previous plan was to have two halls at the venue. One was to be trade only, while the doors of the other were to be opened to members of the general public.

Exhibitors expected to attend included Commodore, Atari, Virgin Games, Ocean, US Gold, Demarc and Virgin Mastertronic (soon to become Sega Europe) among many others both great and small. However, it now appears that the consumer side of the venture has now been abandoned.

We attempted to contact a representative of EMAP exhibitions in order to discover exactly why the public side of the show was to be ditched. But at the time of going to press we had still not received any response.

### MIXED RECEPTION

The reaction from the computer industry, however, has been mixed with some companies welcoming a trade only exhibition, which others feel saddened by the situation.



• Stay away from the European Computer Entertainment Show in September, at Earl's Court 2. Unlike last year's show when it was open to the public, this year's exhibition is strictly for trade only

The organisers are attempting to warn members of the public away from the show with the aid of radio advertising in the London area. However, it is still expected that many members of the public will show up as the pre-booked tickets were available. ■

## Trading places

Traders, from Lintel is a trading game which involves the usual buying and selling of commodities in order to make a profit. While doing this you can play other sub-games, including playing roulette and betting robots.

Four players always play the game, whether they are computer controlled or, with the addition of a four player joystick interface, human.

Games players like being guzzled it seems, and Lintel is counting on this for its release of TIT, its new puzzle game.

While a metal ball rolls around a maze, you have to move the tiles so that the ball crosses the finishing line within the time limit. Numerous obstacles get in the way of the ball's



• Live the life of Gordon Gekko by wheeling and dealing on Traders

progress, including bear bugs and puddles that slow it down.

Both games are available now for the Amiga, ST and PC. For more information, call Lintel on 018-41-752-6388. ■

### EXPRESS...

Mauricio Hamill, the MD of Lancashire-based software house, Hamill International was arrested at his home in Chorley on 30 July and charged with drug-trafficking offences relating to £5 million worth of cocaine.

### ...SNIPPET



• End of level guardians appear in Cardlaxx, which is new on the shoot-'em-up front

## Fast scroller

Adding its name to the streams of shoot-'em-up battling to get into your disk drive is Electronic Zoo's Cardlaxx.

It claims to be the fastest scrolling game to date (don't they all?) and features five different levels, both on weapons, a special two player mode and huge end of level guardians, as shown above.

Cardlaxx will be released on 30 September for the Amiga, ST and PC, priced at £25.99. ■

into trouble as show goes trade only

## ON PUBLIC

## WHAT THE EXHIBITORS THINK ...

News of the change in aspect of the European Computer Entertainment Show came as a shock to many companies who were to participate.

We spoke to a number of major companies to assess their reaction.

**Andrew Wright of Virgin Games:** "I'm really quite upset on behalf of the industry. We didn't want to take two stands, one in the trade area and one for the public, and I think that this was a common attitude. So, at the moment everything is on 48-hour hold awaiting a decision as to whether we will attend".

**Andrew Charatzels of US Gold:** "We are very saddened by the

decision. It doesn't change our stance. We wanted a trade only show but at this late stage we will have to consider our position. We will be showing our wares at the Gloucester Hotel rather than Earl's Court."

**Peter Walker of Atari:** "We are disappointed that the show is not to go ahead. It actually makes us look towards the Computer Shopper show. We think it's important to have a show for the consumer, so this decision saddens us. But the timing of the show is critical. September is too far away from Christmas for it to be effective".

**Kelly Sumner of Commodore:** "It is very unfortunate that some of our associates and competitors

don't want to show their support for a show which the industry needs. We've even started building our stand. We're a little bit aggravated".

**Clare Edgely of Danmark:** "We were only going to the trade side anyway. Although putting together a big stand with loads of arcade games would be nice for the public, it really won't stay with them long enough for the impact to carry over to Christmas".

**Nick Alexander of Virgin Mastertronic:** (about to be Sega Europe): "A consumer show is largely irrelevant to us. We have not been too sad about the situation. The consumer show is a bit of an anachronism".



• *Son of Zeus* features over 40 different fantasy monsters, each with its own sound effect, and the gods comment on the action with sampled speech which guides you on your way

## This will grab you!

Heracles, hero of the *Son of Zeus*, has to free the gods trapped by the evil Kronos on Mount Olympus. He must find 12 pieces of the special stone that holds the key to the god's power, giving them the strength to destroy Kronos.

As Heracles, you view the land of Greece in first-person perspective, and will be able to battle the monsters that will be encountered with a variety of weapons and different physical manoeuvres.

*Son of Zeus* will be available from Electronic Zoo on 30 October for the ST and Amiga.

Electronic Zoo will also release *The Magic Garden*, a cute arcade adventure, on 30 September, while *Under Pressure*, a scrolling arcade action game, will be available on 30 November. ■



• *PC Format* will be launched on 26 September

## Get ready for PC Format

If you've got a PC compatible or are interested in finding out what they are capable of then you should check out Future Publishing's new magazine *PC Format*, the modern guide to personal leisure computing, which hits the newsstands on 26 September.

*PC Format* is aimed at all aspects of leisure and entertainment computing for the PC, including

graphics, music, games, shareware and much more.

Every issue comes covered with either a single 3.5-inch disk or two 5.25-inch disks packed with 70K of game demos and shareware utilities.

The 3.5-inch version costs £2.95 and the 5.25-inch, £3.25.

In the first issue of *PC Format* you will find out everything you need to know about soundcards and why

you should want one, and you'll be able to get to grips with playable demos of *MG 29*, *Super Futurum* and *Speedball 2*.

You'll also find our very own PC columnist, Paul Rigby, offering the benefits of his considerable experience.

The launch issue is out on 26 September and subsequent issues will be in all good newsagents on the fourth Thursday of every month. ■

## The great escape?

Two new versions of the Mass Breakout camera software for the PC are to be launched.

PC Communications is releasing *Mass Breakout 2* and *Mass Breakout Network*. The former enables simultaneous linking of one IBM PS/2 compatible PC with up to four host mainframes or PCs via modem.

Using an on-line windowing system, the user can display all four conferences at the same time, or can 'hotkey' between the four.

The program also runs in the background and can be invoked when required. Included in the package is the Z-Motion file transfer protocol, and a fully implemented VT220 terminal emulation.

*Mass Breakout Network* is, as its name suggests, a LAN (Local Area Network)-based system. Its aim is to do away with the need for shared modems on LANs. Price for this package is an on-sight basis.

*Mass Breakout 2* will cost you £250. For more information call PC Communications on 0628 851111. ■

## Supermouse

Logitech has developed a mouse especially for working with three dimensional graphics that can also be used to input voice commands.

The mouse works by receiving ultrasonic signals from a small transmitter unit plugged into the computer. This means that you can pick up the mouse as well as moving it around on the flat plane of a table top. It will be ideal for Computer Aided Design.

It also has press-to-spec facilities for entering voice commands.

The 3-D mouse will sell for around \$1,000, which Logitech reckons is less than a third of similar devices.

Production models should be available early in 1992. ■

## Empire blitz

*Empire* is blitzing with five new games: *Death Bringer* is a 3D-level scrolling beat-'em-up which features over 800 graphic screens and 36 levels of 'perfect parallel' - the game has parallel effects on every raster line. Kira, the hero of the game, is animated in 64 frames.

In *Totipot*, the conversion of the Taito coin-op, you have to battle through 16 levels of aliens using your lasers and machineguns, while dodging their formidable fire power.

*Space 1589* is the computer version of the role playing game. As well as exploring planets, players can also look around a number of cities on Earth, including London and New York. In their travels players will encounter over 500 different characters which can be either traded with or fought, depending on what's appropriate.

*Eye of the Storm* is set on Jupiter. It features solid 3-D graphics with light source illumination



• Amiga owners can soon become Khan the Barbarian and battle the evil wizards in *Death Bringer*

and Gourand shading, to make objects appear smoother. There are a number of missions to complete, against the hostile intentions of traders, mercenaries and other rogue characters.

*Twilight 2000* is set in the aftermath of World War III. You and your squadron have to deal with the political and territorial problems created by the war, by setting up alliances and military blocs. ■

## EXPRESS...

Sixty three per cent of Tottenham Hotspur's shareholders have accepted the 75p a share offer from Terry Venables and Arsenal chairman Alan Sugar.

...SNIPPET

## NIBBLES

## Royal approval

Berkshire-based Software Products International has been honoured by King Juan Carlos of Spain at a ceremony at the Palace of the Zarzuela in Madrid. The honour was in recognition of SPI's position as the leading business software company in Spain.

Managing director John Browne presented the King with a copy of the company's multi-function software Open Access Airwatch was voted 'Product of the Year' by a leading Spanish PC magazine. Apparently, Juan Carlos immediately filled in his registration form!

## Look, no leads!

Relay-2270 VTAM 4.7 is an enhanced software-only package from ComWare International which enables PC users to use VTAM-based mainframe applications without resorting to leads, emulation boards or other hardware. It provides full-screen emulation of IBM 3271, 3278 and 3279 model SA mainframe terminals.

Prices are £16,750 for the VM VTAM version and £10,250 for the MVS VTAM version.

## NeXT Text

Adobe has announced the launch of its Illustrator colour illustration software for the NeXT computer. It includes features only available on the NeXT version – a preview function and the facility to use colour or greyscale TIFF images as templates for autotracing. It costs £550.

Adobe has also released TouchType for the NeXT. This is a CTR text manipulation program which can perform such tasks as precise kerning, scaling, rotation and case conversion. You can contact them on 0706 821821.

## New fonts

Four new Adobe Type Set packages designed specifically for business uses will be available from 1 September. Each set contains 8 to 13 Adobe type 1 fonts, Adobe Type Manager and a 32 page guide on how to make the most of your fonts. Available for Apple Macintosh computers and PCs running Microsoft Windows, the Adobe Type Set for Business packages will cost between £88 and £148.

## Tense, nervous headache?

Brain machines are devices for relieving stress and inducing a state of tranquility by subjecting the user to all encompassing audio-visual experience.

At £48.95, the Intension PR2 is a new low-cost brain machine offering facilities usually only found on machines costing around £300, according to UK distributor the London Neuro-Centre. It features 25 pre-set programs, but you can also devise up to 10 of your own customised light and sound shows.

Contact The London Neuro-Centre, 23 Candes Lock, London NW1 8AF. ■



• Not something to while away the time under the sun lamp, but a hi-tech solution to stress

## Rugged cuts from GRiD

GRiD Systems, renowned for producing rugged hand-wearing computers, is selling prices across its range by up to 30 per cent.

The reductions affect the company's laptop, notebook and desktop computers, hard drives, RAM kits, CPUs, coprocessors and monitors.

The GRiD 1450 laptop with 40Mb hard drive, for example, is down by \$1,300 to \$3,995 while the 1720 Notebook with 20Mb hard drive has been reduced from \$3,485 to \$2,895. RAM kits are all down by 25 per cent.

For further details contact GRiD on 081-857 6565. ■

Established software boss warns small games publishers:

# "MERGE OR FACE FINANCIAL RUIN"

Audiogenic's managing director Peter Calver has warned other small publishing companies that they must look for mergers or face financial collapse within the next year.

This follows rumours in the computer industry that Audiogenic, the company responsible for such games as Exile and Graham Gooch's World Class Cricket, is running into financial troubles.

Calver, whose company has advertised in the trade press calling for merger or consortium proposals, reckons small companies cannot survive the current impoverished state of the games industry.

"The problem is that there are too many small companies releasing too many mediocre products," Calver told *Express*. "It comes down to who's making the products best as opposed to who's making

the best products."

He believes that mergers will allow companies like Audiogenic to concentrate on producing the games, allowing someone else to handle the marketing. He also believes that a consortium of small companies with one shared marketing division is a possible answer.

"I think that many other companies which have been around for a while will be thinking along the same lines," said Calver.

The Audiogenic move mirrors that of Henson, now 21st Century Entertainment, which advertised in a national Sunday newspaper for partners in a joint venture. It was shortly after this advert that Henson ceased trading. Audiogenic is hoping to avoid the same fate if its proposed plans come to fruition. ■



• Audiogenic believes it needs to merge if it is to carry on producing games like Graham Gooch's World Class Cricket

## All you need is love (and bananas)

*Top Banana* is an environmentally aware Archimedes game from new publishing house, Hex.

It features sprites sampled from television and video – the company believed this is the first time this technique has been used. Also included is three-way parallel scrolling, real time sampled music and customisation facilities to enable players to create their own sub-games by altering sprites. There's even a free T-shirt thrown in.

The game itself is an ecologically-aware output. You are armed with just one powerful weapon, love. With this you have to save the world from the consequences of pollution.

You have to neutralise acid rain, stop floods and liberate the hoards of bull which have been stacked up by the civil corporations. There are four 'wonders' to be saved.

The Hex crew is also working on a new game which makes use of artificial intelligence and neural networking. According to



• In *Top Banana* you can save the world with your powerful weapon – love!

Robert Pageau of the company, "it will change the way that people design games".

The price for *Top Banana* is £25.99. It will be released later this month, and both ST and Amiga versions are also in the planning stages. ■

## SHOOT FROM THE LIP

"We still fundamentally believe that a consumer show is needed."

Neil Wood, IBM's exhibitions director talking about plans for the CES, just days before the announcement was made that it would be a trade only show.

"So soon after the liberation of many countries throughout Eastern Europe, there is one type of European citizen who is far from free – he is your joystick."

Spectravideo press release for the company's new wire-free infra-red joystick, the Freedom Stick.

"The Gravis speaks a word and the word is quality...it sticks to the table top like electrons to the nucleus of an inert element."

Yet another Spectravideo press release for a joystick which does not, in fact, talk, and neither does it cause a nuclear reaction if you pull it off your table top. What are these people on? ■

Word from Tokyo - new Mac portable for under \$2,000

# SONY TO BUILD MAC NOTEBOOK

Apple Computer has once again become embroiled in a confusing situation regarding new launches.

Sony is to manufacture Apple's forthcoming Macintosh notebook, according to Japan's leading financial newspaper the Nikkei.

## WHAT AGREEMENT?

It appears that a Sony spokesman confirmed that the huge Japanese electronics company will be manufacturing the notebook in the very near future. Apple has denied that any such deal has been struck.

The Nikkei report claims that the notebook will weigh between four and seven pounds and will cost around \$1,850. Sony will produce the machine as an OEM (original equipment manufacturer) and it will be sold solely under the Apple brand name. The machine is expected to go into production before the end of this year.



• Confusion reigns over the Mac notebook - has Sony got a deal to manufacture it or not?

Sony already has close links with Apple, providing various parts for the American company, including floppy disk drives.

Sony also has the necessary production facilities to manufacture small computers, so adapting to produce the new Macintosh notebook would be a fairly simple step.

At the moment the Outboard notebook, a portable which can be used as a standalone device and can then 'hook' with desktop Macs, is the only such machine to be recognised by Apple.

## REALLY CRUCIAL

The Sony statement, which has still not been confirmed as coming from an official, follows another embarrassment for Apple, as one of its own executives has been reported as saying that IBM was crucial to the future of Apple.

In reply to a question posed about the relationship between the two companies, and specifically what would happen if the recent joint venture was to fail, Ian Derry, Apple's Pacific vice president said: 'I wouldn't like to think'.

## Visual imagery

Golden Image has launched a revamped version of its hand scanner for the Atari ST and Amiga.

The Golden Image MARK II hand scanner comes with upgraded versions of Touch-Up, the accompanying software. The Amiga version now features a 'sketch' tool and a new scanning utility which enables you to use the scanner while you are still in another program.

Touch-Up for the Atari now includes a 'colours as grey' feature. Grey scales are better than filtered greys, which use combinations of black dots to produce the impression of grey, as they do not distort a desktop publishing program.

The MARK II Hand Scanners are available directly from Golden Image next month. Software upgrades for existing users are £15, while new users will have to pay in the region of £165. Telephone: 081-385 1102, 111.

## New dimension to role playing

Siegemaster offers fantasy role-playing enthusiasts the chance to pit their wits against goblins, trolls, elves and other assorted baddies all in glorious 3-D isometric graphics.

The game, from Future Publishing, involves you leading a party of up to 10 warriors to complete 100 tasks and ultimately overthrow your enemies' evil lord. This includes laying siege to 10 castles.

Siegemaster will be available for the ST and Amiga at £25.99 from late September. ■



• Animated 3-D graphics come to fantasy role-playing in Siegemaster

## AST considers Emerald Isle

AST Research is set to announce details of a new European plant to supply the company's PCs to the whole of Europe.

At the moment Ireland looks the likeliest location as it has, 'excellent facilities as well as a good supply of experienced staff', says William Hsu, the company's marketing manager.

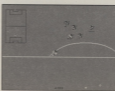
AST Research already has manufacturing facilities in California, Hong Kong and Taiwan and this latest news demonstrates its determination to establish a sound user base in Europe. ■

## Relive those golden moments...

With the increasing popularity of such videos as 25 Years of Match of the Day and 101 Greatest Goals, it was inevitable that someone would soon come up with a computer version.

Golden Goals is to be a series of Public Domain disks containing the best, most exciting and funniest goals scored in Kick Off 2. The brandish of Derek Dooze, Golden Goals will rely on Kick Off players sending in their favourite goals for possible inclusion on the disks. Derek intends to have the first disks available by mid-October.

Derek has big plans for the future of the series, including celebrity Golden Goals. Should any Public Domain libraries would like to stock the disks, or if you want to send in some of your own favourite goals, you should contact Derek Dooze at 3 Glenhurst Park, Chapelwood, Dublin 20, Eire. ■



• Kick Off players send off your favourite goals and they may be included in Golden Goals



• Do your accounts in 3-D with the new version of Maple which has many new functions and full colour 3-D graphics

## Simple algebra

Design engineers can be saved the drudgery of having to work out loads of complicated algebraic calculations thanks to the latest upgrade of Maple from Waterloo Maple Software.

Version 5.0 features many new functions, including full colour 3-D graphics and a new, easier-to-use graphical user interface (GUI).

According to the company you can now make the program perform any of over 2,000 general purpose and specialised mathematical functions using simple commands in a fully interactive environment.

Maple is PC compatible. Prices vary according to platform, with the 386 version costing £517.

## Pulling faces

Matsumita has developed a computer system that could win first prize in a gaming contest.

The PC-based face puller system produces 3-D graphics of the human face which can be manipulated in a wide variety of ways. For example, it could age the face of a baby to that of a 70-year-old man, or predict the appearance of an unborn child by merging the faces of its parents.

More serious uses would be producing identikit pictures for the police or in pathology.

The current system is a prototype, but Matsumita reckons that the final model will be relatively low cost as it is based on an ordinary PC. ■

## EXPRESS...

Next Computers has announced an 86 per cent increase in profits for the second quarter of 1991.

...SNIPPET



\* Virtual Reality doesn't have to be off space suits and goggles...

## Comfy VR

Australia is not famous for the development of virtual reality, however, one man is seeking to change this.

David Nebe has come up with a "new form of VR". Nebe plans to do away with the heavy suits and goggles normally associated with Cyberspace. His idea is to use transponders attached to the body, relaying signals to and from a central processor.

According to Nebe, this is a "more comfortable" way of achieving a computer-based Hivemind. Also, using transponders which do not have to cope with the translation of movement from body, via cloths, to the processor, eases the work of the main computer.

Transponders also cut down on cabling which, in the form of fibre optics, can interfere with movement and lead to a less than totally virtual experience.

To market this new idea Nebe has set up a company called Alternative Computer Systems (ACS) and hopes to take on the rest of the world, showing that the antipodes is as much on the cutting edge as the Orient and occidant. ■

# TOMORROW'S CUTTING EDGE

What's the next step in the evolution of computing? Find out here, right now, on this page...

## Faster chip off the block

A chip with 18 times the processing power of most commercially available processors is being developed in Northern Ireland.

The digital signal processing (DSP) chip is capable of performing 250 calculations per second and comes courtesy of the Institute Development Board of Northern Ireland. Scientists at the IDB are claiming that the new technology enables them to produce circuits which can achieve up to 100 million operations per second.

Uses for the chip, which is a complementary metal oxide semiconductor (CMOS) Infrared Image Response (IR) filter include applications in high definition television, aerospace and radar amongst others.

Its ability to make use of digital rather than analogue techniques for filtering apparently make it more capable of handling high frequencies than standard processors.

The basis of the chip's fantastic ability rests on a new technique for recursive calculations. This is a system whereby the result of one calculation is required to continue with the next.

Scientists in Belfast made a leap of imagination which led them to the conclusion that the whole result of a calculation was not required for this, inasmuch results could be passed on and used in subsequent additions, multiplications and subtractions. The partial results are manipulated using the redundant number system.

The Belfast crew have been equally as fast off the mark as their new invention. The scientists have already formed a company, called Integrated Silicon Systems Ltd, and it will be marketing the chips as soon as the first set is off the production line and out of the factory. ■

## E-by mail

A system called Directory Synchronisation (dsic) has been developed in the United States which enables E-mail users on Enterprise networks to communicate directly with individuals rather than anonymous nodes.

When changes are made to local directories they are automatically logged and sent to the linked systems thus allowing a more direct and immediate communication over local systems. ■

## Like, yeah dude!

Computers and the gentle science of aesthetics are not normally associated themes, after all a grey box is a grey box is a grey box, isn't it? However, a magazine called Verbum seeks to change this view.

Subtitled The Journal of Personal Computer Aesthetics, the mag comes in the form of a CD-ROM and is packed with animated images, interactive multimedia and even interactive letters.

In order to access the wonder-

ous delights of the magazine you will need the following:

- A healthy bank account - the first two CD magazines will cost you \$50 plus post and packaging from the United States.
- A Macintosh SE30 or upwards with 512K RAM
- An 8-bit colour monitor
- And, of course, a CD-ROM drive

For more information, or to place an order, write to Verbum, PO Box 12564, San Diego, California, USA. ■



\* Would you like your TV to set the video itself, record the programs you wanted and also edit out the adverts?

## TV Times?

One of IBM's many vice presidents has looked into the future and has seen "personalised information".

Michael Brousseau like to see intelligent computers which can monitor and relay information from a personally selected menu to the user.

One vision is for smart TVs and videos which scour the world's airwaves for programs which are of interest to the user. The systems will be able to record, and possibly in the future even edit such broadcasts. Once the data has been collected, ideally it should be presented in the form of interactive multimedia. ■

## Smart money

The Soviet Union is to have its first ever automatic cash dispenser.

The Soviet machine money machines will be more advanced than their western counterparts because they will make use of smart cards.

These cards can hold details of banking transactions, and other data in RAM. They will also hold details of the user's fingerprints. The initial shipment is of 2,000 cards. ■

## We are the holograms

Time Traveller is a new game which aims to take arcade into the 21st Century. Big deal! you say, that's what they claimed for Dragon's Lair and Space Ace.

Well you would be wrong. Time Traveller actually uses a different technology to achieve its effects. It makes use of holograms.

Developed by Sega of Japan, the game is already breaking sales records but is let down by the difficulty of its gameplay. Instead of using the conventional arcade game architecture of upright box or sit-down glass table, the game is mounted in a white floor-glass box which stands at about waist height. The player looks down into the system, and manipulates the game by use of three controls which are stationed at the top of the box. The player sees a black aperture into which the holographs are projected.

The aperture itself is lined with black shapes which are back-lit. According to reports from people who have played the new machine at the World Electronic Entertainment Centre in Marina Del Rey, California, the

holograms look real. If a little out of focus.

The game play features a Back to the Future, or even Bill and Ted like theme. The player finds him or herself in the Wild West and needing to get home. Rather than any brain-teasingly complex puzzle solving, the game features a great deal of shooting-'em-up, down and sideways.

The realism of all this violence, the kills are repeated, has already led some observers to question whether or not such a game should be allowed in public.

It has also been questioned as to whether the game is too difficult. Even though a small training segment is available, featuring a young blonde woman, surviving the constant death dealing is far from easy - even if the third controlling button can be used to turn back time.

Sega has not yet announced when the game will be on show in Europe. One final fact of historical interest is that the person responsible for Time Traveller also designed Dragon's Lair. And for the record, his name is Rick Dyer. ■



\* The brains behind Space Ace have been creating Time Traveller which is not only a new game, but also introduces a revolutionary arcade machine

CITIZEN

PRINTERS



Silica presents some great offers on the award winning range of high quality dot matrix printers from Citizen. Each Citizen printer is built in the UK to exacting standards, ensuring superb reliability and a very high quality of output. Our confidence in the quality of Citizen printers is such that we are pleased to offer a unique two year guarantee with every printer. Plus, if you purchase your Citizen printer from us, we will give you a Silica Printer Starter Kit (worth £29.95), FREE OF CHARGE!

**FREE DELIVERY**  
Next Day - Anywhere in the UK mainland

**FREE STARTER KIT**  
Worth £29.95 - With every Citizen printer from Silica

**FREE COLOUR KIT**  
Worth £39.95 - With Swift 9 and Swift 24 printers

**2 YEAR WARRANTY**

Silica offers a 2 year warranty (covering the printer head) with every Citizen printer purchased from Silica

**WINDOWS 3.0**  
Free Windows 3.0 driver - in the Silica Starter Kit

**FREE HEADLINE**  
Technical support hotline open during office hours

**MADE IN THE UK**  
Citizen printers are manufactured to high standards

**144 CPS DRAFT 9 PIN**



### CITIZEN 120D+

The Citizen 120D+ is one of the UK's best selling printers. It has a stylish appearance and excellent features and performance for such an inexpensive printer. The 120D+ is available with either a serial or parallel interface and is an ideal text printer

- 8-pin Printhead
- Print Speed 144cps Draft
- 30page MLO
- Epson & IBM Graphics Emulation
- Pull Tractor & Roll-in Feed
- Superior Graphics - 240x240dpi
- FREE Starter Kit

RPP £232.83  
STANDARD KIT £179.95  
TOTAL RPP £352.78  
SAVING £112.20  
BLACK PRICE £191.58  
**£129**  
+VAT = £161.55

**144 CPS DRAFT 24 PIN**



### CITIZEN 124D

The award winning Citizen 124D brings high quality 24-pin dot matrix printing within every computer users reach. It is the ideal choice where high quality printing is required at a budget price

- 24-pin Impact Printer
- Print Speed 144cps Draft
- 2 LK Fonts (480dpi)
- UK Buffer
- Epson & IBM & NEC PB-emulation
- Advanced Paper Parking
- Superior Graphics - 360x240dpi
- FREE Starter Kit

RPP £292.56  
STARTER KIT £129.55  
TOTAL RPP £422.11  
SAVING £112.20  
BLACK PRICE £371.33  
**£179**  
+VAT = £220.59

**192 CPS DRAFT 9 PIN**



### SWIFT 9 - COLOUR!

The Citizen Swift 9 is perfect for those who require high quality dot matrix black or colour printing at a budget price. The print quality of Swift 9 rivals that of other manufacturers' 24-pin models

- 8-pin Impact Printer
- Print Speed 192cps Draft
- 2 LK Fonts (480dpi)
- UK Buffer
- Epson & IBM Graphics Emulation
- Advanced Paper Parking
- FREE Starter Kit
- FREE Colour Kit

RPP £282.83  
STARTER KIT £129.55  
COLOUR KIT £144.85  
TOTAL RPP £557.23  
SAVING £112.20  
BLACK PRICE £333.44  
**£189**  
+VAT = £232.58

**192 CPS DRAFT 24 PIN**



### SWIFT 24 - COLOUR!

The Citizen Swift 24 is one of Europe's best selling printers and has now secured printing of the Year 1990. Its rapid print speed, quality and black or colour options, make it a natural choice

- 24-pin Impact Printer
- Print Speed 192cps Draft
- 4 NLG Fonts (960dpi)
- UK Buffer
- Epson, IBM & NEC PB-emulation
- Advanced Paper Parking
- FREE Starter Kit
- FREE Colour Kit

RPP £419.96  
STARTER KIT £129.55  
COLOUR KIT £144.85  
TOTAL RPP £694.36  
SAVING £112.20  
BLACK PRICE £582.13  
**£259**  
+VAT = £304.53

## PRINTER ACCESSORIES



### SHEET FEEDERS

PRAC100 £11.38  
PRAC125 £14.99  
PRAC125 £14.99  
PRAC125 £14.99

### SERIAL INTERFACES

PRAC110 £10.99  
PRAC120 £10.99  
PRAC120 £10.99

### PRINTER STAND

PRAC100 £11.38  
PRAC125 £14.99  
PRAC125 £14.99

### ORIGINAL RIBBONS

PRAC100 £11.38  
PRAC125 £14.99  
PRAC125 £14.99

### COLOUR KITS

PRAC100 £11.38  
PRAC125 £14.99  
PRAC125 £14.99

## FREE! STARTER KIT

Every Citizen printer from Silica, comes complete with the Silica Printer Starter Kit, including everything you need to get up and running with your new printer immediately. FREE OF CHARGE!

- 310" Smart Format Disk with Amiga & ST Printer drivers
- 310" Disk with Drivers for Microsoft Windows 3
- 2 Mhz Parallel Printer Cable
- 200 Sheets of High Quality Continuous Paper
- 200 Continuous Address Labels on Reel Feed
- 8 Continuous Envelopes on Reel Feed

If you already own a printer, and would like a Silica Printer Starter Kit, you may order one (Ref. KIT 5000) for the special price of £29.95 - £5 off RPP.

**£29.95**

## SILICA SYSTEMS OFFERS YOU

- **FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.
- **TECHNICAL SUPPORT HELPLINE:** Team of PC technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.
- **EXT. TURNOVER (with 40 staff):** Solid and reliable with maintained growth.
- **BUSINESS/EDUCATION/GOVERNMENT:** Volume discounts available for large orders.
- **SHOWROOMS:** Demonstration and training facilities at our London & Glasgow branches.
- **THE FULL STOCK RANGE:** All of your PC requirements from one supplier.
- **PRICE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.
- **PAYMENT:** By cash, cheque and all major credit cards.

Before you decide when to buy your new printer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or some technical help and advice. And, with the company you buy from, consider how you will return the printer, if you are not satisfied. At Silica Systems, we are one of the UK's leading independent computer dealers and provides a quality service to users at home, in education and business throughout the nation. Silica have been established for over 12 years, and have an annual turnover of £12 million. With our unmatched experience and expertise, we can now help to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon, for our latest Free literature on the Citizen printer range and begin to experience the "Silica Systems Service".

**SILICA SYSTEMS**

MAIL ORDER:  
1-4 The Mews, Hatherly Rd, Sibson, Kent, DA14 4DX Tel: 081-300 9111  
Fax: 081-300 9111  
LONDON SHOP:  
52 Tottenham Court Road, London, W1P 0SA Tel: 01-580 4080  
Fax: 01-580 4080  
GLASGOW SHOP:  
1-4 The Mews, Hatherly Rd, Sibson, Kent, DA14 4DX Tel: 081-300 9111  
Fax: 081-300 9111

To: Silica Systems, Dept HCE 0091 - 55, 1-4 The Mews, Hatherly Rd, Sibson, Kent, DA14 4DX

## PLEASE SEND CITIZEN PRINTER INFORMATION

Mr/Ms/Ms/Ms: \_\_\_\_\_ Initials: \_\_\_\_\_ Surname: \_\_\_\_\_  
Address: \_\_\_\_\_  
Postcode: \_\_\_\_\_  
Tel (Home): \_\_\_\_\_ Tel (Work): \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Which computer(s), if any, do you own? \_\_\_\_\_

## NEW PRODUCTS

## Going up

**PRODUCT:** 386 PC upgrade card  
**NAME:** Hyperica 386SX  
**COMPATIBILITY:** PC (IBM PS/2 model 50)

Just because you have a 286-based PC doesn't mean that you have to be left out on the DOS speed stakes. A new upgrade board from Chippewah-based Hyperica means, according to the 2000 wait state variety, there is also a slot for a 80387 numeric co-processor.

The Hyperica 386SX card adds a 386SX processor running at 20MHz, as well as 64Mb of cache memory. The additional cache memory is of the "zero wait state" variety. There is also a slot for a 80387 numeric co-processor.

The company tells us that both Norton SI and Landmark speed tests have shown that the installed card can increase processing speed to 50MHz.

**Price:** \$449  
**Availability:** Now  
**Target users:** At the moment IBM PS/2 model 50 users. It is expected that compatibility with other PCs is forthcoming.  
**Contact:** Hyperica (0672) 63836  
**Perceived competition:** None at the moment.

## WHAT'S NEW

The latest hardware and software in small, easy to handle chunks. The facts, the whole facts and nothing but the facts...

## Neural kids

**PRODUCT:** Neural Networking tools for Windows  
**NAME:** Neural Desk  
**COMPATIBILITY:** PC

Neural Networking was one of the buzz phrases of the late 80's and early 90's. People were then talking about computers which would be able to emulate the human brain before the century was out. Now they are becoming more serious about the possible applications.

Neural Desk is in fact a Windows-compatible software suite rather than a hardware-based brain neuron emulator as its name might lead one to believe. It features three modules: Neuralnet, Neuronet and Neuron. Basically the set-up enables users of neural nets to explore the potential of their systems, developing new applications or linking with existing applications, using the Windows graphical user interface.

To run the system you will need a 386 or upwards with 2Mb RAM, and a 20Mb hard disk. Ideally a 386 with 387 math co-processor, 4Mb of RAM, 48Mb hard disk and VGA monitor are required. You will also need Windows 3 or later running under DOS 3.0 or above.



• Does your computer brain hurt? Well the remedy might be to lay your hands on some software to nudge its neurons

**Price:** £95  
**Availability:** Now  
**Target users:** Developers and users of neural networks  
**Contact:** Neural Computer Sciences (0703) 967775  
**Perceived competition:** No other company is providing this kind of end-user/developer software for neural systems.

ble with a wide range of desktop publishing packages working under GEM and Windows. These include: Timeswift Publisher, PageMaker, DeskPress, and Ventura. There is also support for database packages such as Superbase IV, Excel and Wing.

Both of the new collections come with extended character sets which make for clearer reproduction of accented character sets.

**Price:** £32.82 each. However a special offer which lasts until 31 October means that both packs bought together will cost £158.40

**Availability:** Now  
**Target users:** PC using desktop publishers and database users  
**Contact:** GST: 0480 496788

**Perceived competition:** Highest up the list is Bitstream with its range of PC-compatible typefaces.



• The Newsletter collection from Typegraphica features some strong headline fonts to add character to even the dullest database output



## Sticks of joy

**PRODUCT:** Joystick and infrared joystick connector  
**NAME:** Gravis Freedom Connection  
**COMPATIBILITY:** Amiga, C64, Atari VCS, Sega MasterSystem

Games playing, eye-to-hand co-ordination, reflexes being sharpened, or just brain bubble gum? Either way you will need a joystick to shoot-aim-up or knock-aim-down.

The Gravis from Spectravideo comes with eight position control which is possible to pre-set, there are also three independent left buttons.

The Freedom Connection is a strange entry to the gallery of computer hardware add-ons. It is an infra-red connector for standard joysticks.

One end plugs into the computer, while the other attaches to the joystick. The company

claims that the joystick connector can even be carried around on your belt, whatever the use might be for that.

As a side issue, turn to page six and the Shoot from the Lip section to read extracts from the press releases relating to these products. If nothing else it might make you smile.

**Price:** Gravis: £48.98 for the Amiga, ST, C64, Spectrum, CPC, £58.69 for the PC version. Freedom Connection: £23.44 for the Amiga, C64, Atari VCS and Master System

**Availability:** Now  
**Target users:** Games players  
**Contact:** Spectravideo: 081-900 0034

**Perceived competition:** None as far as the infra-red connector is concerned. Companies such as Konix and Cheats are direct competitors for the joystick. ■



• Speed isn't everything, but it certainly does help when working through acres of spreadsheet. This board could help your 286 to live up to expectations

## Type cast

**PRODUCT:** New typefaces  
**NAME:** Typegraphica Newsletter and Decorative collections  
**COMPATIBILITY:** PC

Desktop publishing is not just a matter of stapling pictures on a page. You also need text. Typegraphica's new typeface collections should take on two ends of that area. The Newsletter set comprises two headline fonts, Futura and Trajan, and two faces for use in body copy: TTC Galliard and TTC Caslon. All four faces come in bold, italic, bolditalic and roman.

The Decorative collection features eight faces of a more flamboyant nature: Europa, Gargiel, Gargiel, Wagner, Tudor, Spirite, Mercury and Roxel. Again these come in the standard four weights.

The Typegraphica range of fonts is compat-



## NEW! CARTOON CLASSICS PACK

<b>HARDWARE:</b>	<b>SOFTWARE - PRODUCTIVITY</b>
512K AMIGA 500	DELUXE PAINT II
ASCI TV MODULATOR	FREE
ASCI RAM EXPANSION	FREE
<b>SOFTWARE - ENTERTAINMENT</b>	<b>ARCADE ACTION PACK</b>
SMART SAMPOK	£24.99
CART PLANET & PLANETEERS	£25.99
LEMMINGS	£25.99
	<b>TOTAL RRP: £100.97</b>
	<b>YOU SAVE: £50.97</b>

**PLUS! 16 NIGHTS FREE HOLIDAY ACCOMMODATION**

**£399**

SILICA PRICE - INCLUDES VAT & FREE DELIVERY

## ARCADE ACTION GAMES PACK

<b>HARDWARE:</b>	<b>SOFTWARE - PRODUCTIVITY</b>
512K AMIGA 500	DELUXE PAINT II
ASCI TV MODULATOR	FREE
ASCI RAM EXPANSION	FREE
<b>SOFTWARE - ENTERTAINMENT</b>	<b>ARCADE ACTION PACK</b>
SMART SAMPOK	£24.99
CART PLANET & PLANETEERS	£25.99
LEMMINGS	£25.99
	<b>TOTAL RRP: £100.97</b>
	<b>YOU SAVE: £50.97</b>

**PLUS! 16 NIGHTS FREE HOLIDAY ACCOMMODATION**

**£399**

SILICA PRICE - INCLUDES VAT & FREE DELIVERY

# AMIGA

## STAND-ALONE 500 COMPUTER

• 512K AMIGA	£329.99
• TV MODULATOR	FREE
• MOUSE CONTROLLER	FREE
<b>PLUS! - FREE FROM SILICA</b>	
• ARCADE ACTION PACK	£229.78
• PHOTON PAINT 2.0	£89.95
<b>TOTAL RRP:</b>	<b>£649.72</b>
<b>YOU SAVE:</b>	<b>£320.72</b>
<b>SILICA PRICE:</b>	<b>£329</b>

**PLUS! FREE HOLIDAY ACCOMMODATION**

**£329**

SILICA PRICE - INCLUDES VAT & FREE DELIVERY

## FREE! FROM WITH SILICA EVERY

### ARCADE ACTION PACK

The new Arcade Action Games Pack is THE software compendium for Amiga owners, featuring ten top titles with a variety of different types of games for you to enjoy. Each title is packaged in its own plastic case, with a colour sleeve and full instructions. The Arcade Action Pack is FREE when you buy your Amiga 500 from Silica.

**FREE! WORTH £219.78**

### ARCADE ACTION GAMES PACK

The new Arcade Action Games Pack is THE software compendium for Amiga owners, featuring ten top titles with a variety of different types of games for you to enjoy. Each title is packaged in its own plastic case, with a colour sleeve and full instructions. The Arcade Action Pack is FREE when you buy your Amiga 500 from Silica.

**FREE! WORTH £219.78**

### FREE! PHOTON PAINT 2.0 GRAPHICS PACKAGE

Every Amiga 500 from Silica Systems comes with a FREE Photon Paint 2.0 (RRP £89.95), one of the most advanced art packages available for the Amiga. With it, you will be able to harness the extraordinary graphics power of the Amiga and produce inspirational pictures in minutes. With 4096 colours, your pictures will reach life-like appearance. These can be animated in real-time using a vast range of graphical effects, including blending colours and dithering, stencils, shadowing, contour mapping and surface mapping.

**FREE! WORTH £89.95**

### FREE! 16 NIGHTS HOLIDAY HOTEL ACCOMMODATION

Every Amiga from Silica comes with a FREE 72 page, full colour brochure with accommodation vouchers. These vouchers entitle 2 people to stay up to 16 nights in (one hotel (or any number of hotels to a total of 16 nights) with accommodation FREE (you could take up to six nights for four people, or other options). Choose from the 250 hotels featured in the catalogue. All featured in the catalogue. All you have to pay for are your meals (prices are listed in the brochure). Reduced rates in top London hotels and hotels in France are also featured.

**FREE! WORTH £160.00**

## AMIGA

### TOTAL FREE PACKAGE

<b>ARCADE ACTION PACK - £229.78:</b>	
Asterix - By Colossal Vision	£24.99
Chess Player 2150 - By CP Software	£24.95
Drivin' Force - By Digital Magic	£24.95
Live & Let Die - By Elite	£19.99
Onslaught - By Hewson	£24.99
Pipe Mania - By Empire Software	£24.99
Rick Dangerous - By Firebird	£24.99
Rock 'n' Roll - By Rainbow Arts	£19.99
Skweek - By US Gold	£19.99
Trivial Pursuit - By Domark	£19.95
<b>ART PACKAGE - £89.95:</b>	
Photon Paint 2.0 - By MicroVolution	£89.95
<b>TOTAL RRP:</b>	<b>£319.73</b>

**FREE! WORTH NEARLY: £320**

**PLUS! FREE HOLIDAY ACCOMMODATION**

**£329**

SILICA PRICE - INCLUDES VAT & FREE DELIVERY

## SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT COVERED DELIVERY:** On all hardware orders shipped in the UK.
- **TECHNICAL SUPPORT HELPLINE:** Team of Amiga technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "same product - same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer services.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available for large orders.
- **SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.
- **THE FULL STOCK RANGE:** All of your Amiga requirements from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with prices and software/peripheral details.
- **PAAYMENT:** By cash, cheque and all major credit cards.

Before you decide when to buy your new Amiga computer, we suggest you think very carefully about WHERE you buy it. Consider what it will take a few months after buying your Amiga, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding that is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

**MAIL ORDER HOTLINE 081-309 1111**

**SILICA SYSTEMS**

**MAIL ORDER:**  
Order Lines Open Mon-Sat 9.00am-6.00pm  
The Late Night Ordering  
Tel: 081-309 1111  
Fax: 081-309 2658

**LONDON SHOP:**  
Unit 5, Storey  
62, Tottenham Court Road, London, W1P 0BA  
Tel: 071-586 4000  
Fax: 071-586 4001

**LONDON (BRIDGEMAN):**  
Unit 5, Storey  
1st Floor, 369 Oxford Street, London, W1A 1AB  
Tel: 071-629 1234  
Fax: 071-629 1235

**SIDCUP SHOP:**  
Opposite Tesco  
Unit 5, Storey  
1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DE  
Tel: 081-309 1111  
Fax: 081-309 2658

© Silica Systems, Dept MCI 0811 - 60, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DE

### PLEASE SEND FREE AMIGA COLOUR CATALOGUE

Name: \_\_\_\_\_ Initials: \_\_\_\_\_ Surname: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_ Tel: \_\_\_\_\_

Which computer(s), if any, do you own? \_\_\_\_\_

NOTE: Information prices and specifications may change - please return the coupon for the latest information.

## Capital North Ltd.



Present

A 16-Bit

COMPUTER EXHIBITION  
EXTRAVAGANZA

at the Leeds University Exhibition Centre, Calverley Street, Leeds 2.

Friday, 13th September, 10 a.m.-6 p.m.

Saturday, 14th September, 9 a.m.-8 p.m.

Sunday, 15th September, 10 a.m.-4 p.m.

BE SMART. BE THERE!

PLUS: Bring your  
spare computer  
equipment to sell at the  
Belt and Bay Counties.  
10% Commission.

★ Car parking for 1200 ★ Refreshments available ★

See the latest  
software &  
hardware  
Thousands of  
bargains.

Stand Enquiries: Tel./Fax 0532 677657/610997

COMPUTER REPAIRS  
AND UPGRADES

## ● COMMODORE ● ATARI ● AMSTRAD ● SINCLAIR ● IBM ●

- Commodore registered, Amstrad authorised
- Fixed prices on many machines.
- Most computers should be repaired 24hrs from booking in
- Over 3500 square foot engineering complex at your disposal
- First class technical advice available from over 20 technicians/engineers

Amiga 500.....	£44.95	→ (12% additional premium if disk drive unit or keyboard are not repairable and require complete replacement)
Atari 520 STFM.....	£15.00	→ Diagnostic fee plus quote (Typically £45.00)
Commodore 64.....	£29.00	
Spectrum 48K.....	£21.00	
Spectrum +2.....	£29.00	
Spectrum +3.....	£35.00	
Spectrum 128K.....	£24.00	
Amstrad 464.....	£32.00	
Amstrad 6128.....	£36.00	
IBM/Clone.....	P.O.A.	
Other Machines.....	P.O.A.	

## PREMIUM SERVICE

To utilise our premium service simply send or hand deliver your machine to our workshop address below, enclosing a fault description and daytime telephone number plus payment, and we will do the rest. Please add £5.00 if you require 24hr to your door courier or else contract parcel post will be used.

(W.T.S. reserve the right to refuse machines which are in our opinion beyond economic repair - Handling charge may be applicable)

TEL: 0582 491949 (4 lines)

W.T.S. ELECTRONICS LTD, Chaul End Lane, Luton, Beds., LU4 8EZ.



## PAGE HEADING

## ON THE COUCH



This week the Doc with the smooch takes a look at SIMONE HILL from READING. Simone wrote in and told us all about the machine she owns, her favourite software, and the machine which would meet her innermost digital desires. All this information came on the back of a cheap postcard. All the advice comes in expensive chunks (we're paying for it - £5). If you would like a wee bit of analysis to smooth out the edges, then write to: Leather Couch Care, New Computer Express, 38 Monmouth Street, Bath, Avon BA1 2BN. It could be the first paragraph in the next chapter of the book of your new life!

Now then, Simone, take the ribbon from your hair, shake it loose and let it fall. Psychoanalysis time is here. So, tell us about the computer-related items which rule your life...

- MACHINE OWNED: Amstrad ALT 386
- FAVOURITE SOFTWARE: SuperCalc
- DESIRED MACHINE: Sun workstation

Dull. That's really all I have to say at the moment, dull. There is a continuity to your present possessions which seems to suggest a need for security.

Underpinned by a fetish for organisation and down to earthness all the points in Simone's letter were neatly tabbed, with margin notes explaining background. The letter ran to five pages.

All of this suggests a stable personality who merely wishes to see her name in print. And it is this which is of more interest.

You say that you want the Sun workstation because "it is a really sexy computer don't you think".

No, computers are not sexy things. A transference of straightforward desire from a human object to a machine is a major sign of a deep-seated neurosis. Combine this with your wish to have your full address printed in order that you can 'get together with other like minded people' and we have a classic case of obsessional sublimation coaxed through the psyche with a large dose of phobic syndrome - the Sun. PRODIGES

You are ideally suited for a move to Heli where you could set yourself up as a government official and Tom Tom Macol informer. Your need for organisation could be well used in a flowering bureaucracy. Your sublimated need for contact would blossom, and you would be thousands of miles away from the rest of us.

much. I look forward to your taking the piss in a forthcoming NCE letters page.

Bill For  
Dorchester

WELL, BILL, I HAD TO BUTCHER this letter in order to get at least some of it. Your initial points relating to privacy will, I am sure, be used at a later date. As for the question of the moment, PD, I think it's time for one point to be made clear. For some reason, everyone has picked up on the Porn angle. In the PD article, pornography was just one of the areas explored. The others were viruses, violence and piracy. What does anyone think about those?

As for the 'Nanny state' argument... that was not what we were proposing. The proposition was to form an organised, publicly accountable union of PD members. Nannying from within if you will. And with that in mind...



## Come together?

Following your article on PD in the NCE (issue 142) I feel I had better write to you concerning certain events about a year ago.

I wrote to every PD company suggesting a self-financed 'ombudsman' scheme. This was due to the fact that I had been blatantly ripped off by a certain PD company (IS for a disk) and I was concerned over the sexual nature of some disks.

I actually got to see some of these at a friend's house and was appalled.

I suggested that the PD companies should give a small per cent of their 'profit' (in Italia because they are not supposed to make any) to this scheme. This would go into a fund for the following purposes:

- To attempt to protect the consumer if a company liquidates
- To advertise to promote its existence
- To control the pornography available if not to ban it, to tone it down
- To get assurances it was for over 18 years only.

In return each company would get an official 'seal' for their ads assuring that they complied were reliable. The results of this are perhaps more interesting. Out of some 36 libraries four (and a year later five) replied.

Two thought it a good idea but one could not afford the fee. This I sympathise with. Quite honestly some PD libraries are non-profit making and have little spare money.

Then again some are not. One library rang me up. They told me the idea was unworkable as how could I tell what was/was not offensive? They are now one of the biggest PD libraries in the country and continue to sell so called XXX disks. There is too much money in it to drop it willingly.

Twenty-five did not reply. That

alone speaks for itself. I would ask the PD libraries to do something before it is too late and legal restrictions control the established forum for new talent, and above all rot away the sex element.

Self regulatory bodies - like FAST - have been shown to be in the end beneficial to all but a small needless minority.

I fully admit that there is a problem controlling a supposedly nebulous PD forum, but PD companies are now well established businesses in many cases and are far from being in an ether.

I will discuss on this.

Roy Chambers  
Cumbria

ROY, SORRY FOR NOT informing you that we were going to publish this letter, busy, busy you know. Anyway, I think we have already made our point in terms of ombudsman for PD.

In terms of there being too much money in pornography PD companies to drop it willingly, I would prefer to be more charitable about the whole thing. There would not be any money in it at all if people were not downloading it from BBSs or buying it from PD libraries. Apportioning blame is an exercise which should be carried out with care.



## Service!

After a few weeks study of the various types of home computer available, we took the plunge and purchased an Atari STE some eight weeks ago. Being new to the computer scene, we did a few of the right things and read up on all the need to know stuff in the popular magazines. In order to increase our stock of software we invested a modest sum of £15 in a selection of CD software from Jenix of Kent.

The software selected covered a variety of computer topics in order to increase our knowledge in these subjects. We are familiar with all the normal day to day operations of the desktop and mouse features offered on the Atari, but had genuine problems in 'opening' some of the programs sent on the PD disks.

Due to the disappointing results of this first venture, we sent a quantity of the discs back to Jenix listing the faults and problems we had found and rather than request a refund, selected some alternative titles as replacement.

Imagine our surprise when we read the letter from the Proprietor (Mr H Klee) especially the tone of the whole tone that came back, with the final insult of holding the returned disks to ransom for the paltry sum of 35 pence.

Needless to say, Jenix will be keeping the ransom disks and we will most definitely NOT be trading with them again.

Please make your readers aware of the business attitude that

prevails at Jenix towards their most valuable asset, the customer.  
D R & E E Burgin  
Chigwellham

WOULD ANY REPRESENTATIVES from the company in question care to respond to this?



## Sexist or sexy?

I have never regarded a Sex Computer Express as a sex stimulant, but the Trojan advert you ran last week is downright phallic. If it is 'really aiming to please' Trojan is coming at it the wrong way. Just what sort of market does it want to hit?

Was it not enough to make crude jokes about 'light guns in your pocket' in Trojan's competition feature? Do you have to go on about 'deep grip for good handling' and 'higgins'? I'm surprised you didn't add it could shoot up to five metres and run down the mains.

I hope this is just a phase - you're going through it. It's no wonder we have a Trojan virus.

Sharon Marshall  
Blackburn

AH YES, THE HOARY OLD question of subliminal sexual content to advertising. Cadbury's Flake is now joined by Trojan with its light gun. Does anyone else have any 'I've spotted some sexual innuendo' in computer advertising stories? Why not send them in.



## Vic rubbed

What with history being cyclical, will my Vic 20 still ever come back into fashion?

JP Gregg  
Exton

NOT UNTIL NAPOLEON returns. ■



## Write Now

Write and tell Hayden F20-Williams what you think! Reach him at: Express Mail, 30 Monmouth Street, Bath BA1 2BN. Sorry, no personal replies, even with an SAE and remember, only 5000 letters with a liver.



## On-line mail

Own a modem? Then again us a letter. Express has its own area on Aspects bulletin board (961 702 3200) where you can leave mail and upload/download files.

We also have our own conference on CD. Give this on-line service a ring on 081-305 1244 and talk to us direct! You can also leave E-mail for us on Proton and Microcom - get in touch on 01111022, or on Telecom Gold 084711122

# MediaVALUE SUMMER SPECIALS



## SPECIAL OFFER DISKS PLUS BOX OFFER

10 3.5" DSDD disks + library case .....	£4.50
10 3.5" DSHD disks + library case .....	£8.50
10 5.25" DSDD disks + library case .....	£3.00
10 5.25" DSHD disks + library case .....	£4.50

100 3.5" DSDD disks + 120 cap storage box £38.00
100 5.25" DSDD disks + 110 cap storage box £28.00

## BULK DISKS STORAGE BOXES

### 3.5" DSDD

	10	25	50	100
3.5" DSDD	38p	37p	35p	33p
3.5" DSHD	87p	87p	87p	87p

3.5" DSDD Sony bulk  
40p per disk minimum quantity 10 disks.

3.5" 40 capacity .....	£4.50
3.5" 80 capacity .....	£5.50
3.5" 120 capacity .....	£6.50

### LIBRARY CASES

10 capacity .....	£1.05
3" disks .....	each £1.60
Amstrad 8256 ribbons .....	£2.50

## BANX BOXES

Great space saver holds approximately 80 disks. Can be  
stacked horizontally or vertically.

One box .....	£9.00
Two or more boxes .....	£8.00



## LABELS

3.5" + 5.25" 100 labels .....	£1.50
1000 labels .....	£8.50
3.5" tractor fed .....	per 100 £1.50
.....	per 1000 £8.50

## BRANDED SONY SPECIAL OFFER

20 branded Sony disks in a sturdy plastic  
case £12.00 per box

MediaValue are pleased to announce the  
opening of our showroom on Saturday 17th  
August 1991. Come along and see our  
products on display. Great opening offers.  
Our hours of opening will be 9.30am to  
5.00pm Monday-Friday, 10.00am to 4.00pm  
Saturday.

All our prices include VAT. Prices subject to change without  
notice. Education and Government orders welcome. All  
3.5" disks come with labels. Call now for our price list. We  
stock 5.25" disks and boxes.

Telephone: (0753) 833555 Fax: (0753) 832394  
We offer a no quibble replacement  
money back guarantee.



## ACCESSORIES

3.5" disk cleaner + fluid .....	each £1.95
3" disk cleaner + fluid .....	£2.50
5.25" disk cleaner fluid .....	£1.95
Mouse mat .....	£2.00
Mouse house .....	£1.95
Atari + Amiga keyboard covers .....	each £3.00

	To: MediaVALUE Dept NCE 16/08 The Business Centre Vansittart Estate, Windsor, Berkshire, SL4 1SE.		Tel: (0753) 833555 Fax: (0753) 832394	
	I enclose a cheque/PO for .....			
Credit Card No: .....		Expiry Date: .....		
Signature .....				
Quantity	Description	Price	Total	
Delivery charges: UK only £2.75 Next day delivery £10.00 (UK) only		Delivery		
Name .....				
Address .....				
Telephone .....		Postcode .....		
E & O.E.				

## MACHINE SPECIFICS

## AMIGA

- Major upgrade for Silica's Scala
- Exclusive review: Omega's Sound Enhancer!
- Superfast comms with SupraModem

## SCALA UPGRADED

Fans of Silica Systems' acclaimed Scala presentation system will be pleased to learn that a major upgrade is now available. As reported exclusively in issue 143 of *New Computer Express*, Scala 2.0 is virtually complete, but this latest version bridges the gap between the two releases.

Since its release, Scala has rapidly become the Amiga's best selling presentation system, outselling its main competitors by a clear margin. With the release of version 1.1, Scala has become the most powerful presentation program available for the Amiga.

## Features include:

- **ANTI-ALIASING** - As any video enthusiast will tell you, even the Amiga's high resolution screen modes can still look a bit jaggie when producing video titles. Version 1.1 of Scala has realtime anti-aliasing built in as standard, giving the impression of a much higher screen resolution with smooth, jaggie-free fonts.
- **ARXES SUPPORT** - Scala 1.1 offers full support for ARexx, a system which

enables various Amiga programs to communicate with each other. This means Scala can be directly controlled by other ARexx-compatible applications, making it ideal for multitasking.

● **COLORFONT SUPPORT** - Now you can take advantage of all these beautiful ColorFonts from Kara. This should have really been included in version 1.0. The one drawback with ColorFonts is that as soon as you import a second ColorFont, it affects the palette of the first, changing its characteristics substantially. Scala avoids this problem with its powerful (and fully automatic) palette remapping facility.

● **OUTLINE FONTS** - When used on a machine with version 2.1 of Workbench, Scala 1.1 fully supports Compugraphic Outline fonts such as those marketed by Gold Creek for use with its range of DTP (Desktop Publishing) software. Outline fonts allow you to produce text at any point size without introducing jaggies.

Scala costs a hefty £264.95. Look out for a full review soon.

☎ Contact Silica on 081-308 1111.

## SOUND ENHANCER

You've probably read all about Omega Projects' Sound Enhancer in other publications, but to date nothing has been seen of what is being called the most revolutionary sound-related product ever. The manufacturer claims that the £35 unit improves the sound quality of the Amiga beyond recognition. Is it true or is it just hype? Read on to find out.

Thanks to these very nice people at Omega Projects, I've been lucky enough to have been able to have a play with this only Sound Enhancer in existence. At the time of going to press, Omega was still waiting for both casings and PCBs (Printed Circuit Boards) to arrive, but I managed to talk the company into parting with its one and only pre-production model.

The Sound Enhancer was originally designed for use with Omega's Sound Trap M1 sampler, a quite excellent little package for around £30. However, it will also work equally well with virtually any program that produces sound via the Amiga sound chip (MIDI applications won't be affected). This includes all games, music packages and samplers - even the Intron Display (Bleep) function sounds nice!

The unit plugs in between the Amiga's sound jacks and either your monitor or hi-fi

(depending on which you use). It takes it power from the serial port via a little cable with a 25-pin connector. On the front of the unit are two controls, a proportional knob which controls the unit's effect and an on/off switch.

I must admit that I was a little sceptical when I first heard about the Sound Enhancer, but actually seeing one in real life has more than put these fears to rest. Put simply, I was absolutely amazed at the difference it made.

The greatest effect was on high frequencies (hi-hats etc), but it also makes other frequencies far sharper, including bass and mid range. The net result is far punchier bass and a quite superb high frequency response. It's almost like having a brand new sound chip installed inside your machine.



● Omega Projects' new Sound Enhancer works particularly well with sound samplers like AudioMaster. For a mere £35, it improves the quality of the Amiga's sound way beyond belief

## FEED YOUR ST!

## MEMORY UPGRADES

STE KITS	NORMAL PRICE	WITH 512K TRADE IN	WITH 1024K TRADE IN
8MM OR 8IP TYPE			
512K TO 1024K	£22.00	-	-
2 MEGABYTE	£83.75	£73.75	£63.75
4 MEGABYTE	£160.00	£150.00	£140.00

All above kits come with detailed instruction booklet. 3 and 4 Megabyte kits come with free monitoring software. Free fitting available in all stores.

ST(M) KITS	Price
Solder in 1Mb Upgrade Kit	£36.00
1 Megabyte board Expands to 2Mb	£88.00
2.5 Megabyte Plug in Upgrade	£115.00
4 Megabyte Plug in Upgrade	£225.00

## EMULATORS

PC EMULATORS	
PC SPEED hardware emulator for ST-Runs 4 times faster than standard PC. Full I/O compatibility.	Supplied Fitted £30.00 £120.00
AT Speed 16MHz 286 Processor Norton 8.3.	Supplied Fitted £220.00 £245.00
AT Speed STE adaptor Spectre GCR MAC Emulator (including ROMs)	Supplied £320.00

## CHIPS Etc.

16x256Kx1 Dram Chips	£24.99
16x1Mbit Dram Chips for upgrading TCT and Frontier Boards	£70.00

## Disk Drives

Internal double sided drive upgrade with spacers	Supplied
8000 Hard Drive with DMA Out, Internal PSU, 15MB access time, Quiet running	£47.99 £328.99

All goods carry a 14 day returned-as-new money back guarantee. All memory upgrades carry a 2 year warranty against faulty manufacture.

## HOW TO ORDER

Prices Include VAT.	Telephone orders and enquiries welcome on: 081-777 0761 Please make cheques/postal orders payable to: HCS 35 HARTLAND WAY, SHIRLEY, CROYDON, CRO 9RJ. <small>Goods usually dispatched within 2 days of receipt. Trade in paid on a return.</small>
---------------------	---

NDT FlatLiner

80386SX-20, 45Mb HDD

MultiSync 14" Colour, Keybd

Mouse, 1.44, 2Mb Ram, Software

£899

TEL: 0922 616733

FAX: 616737

All prices exclude Vat. P&P U.K. £25



NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

If you enjoy the quality of the Amiga's sound, then you'd be a fool not to get your hands on a Sound Enhancer. Omega Projects is on 0925 762895.

## MASS STORAGE NEWS

As any hard disk owner will tell you, backing up a hard disk can be a real pain. Even a fairly small capacity drive like Commodore's own A590 can take literally ages to back up on to floppy disks using a utility like QuarterBack. But once you start taking in terms of 60Mb and more, major amounts of both time and disks are required.

However, there are alternatives. One of the most popular backup systems used with the corporate market is the TapeStreamr, a sort of glorified tape recorder. Several tape streamers are already available for the Amiga (the Xetec unit, for example), but US-based TTR Developments has come up with a system to beat them all: its Digital Audio Tape-based SCSI tape streamer can backup a massive 1.3 Gigabytes (that's 1,300Mb) onto a single tape. What's more, it's fairly cheap – the US price is just over \$600. This price includes the SCSI-compatible tape streamer hardware, all the necessary software and a single 1.3Gb/s cartridge.

TTR is on 010 608 277 8071. If you're after something a little different, Xetec's new MDX-600 Optical drive may be just what you're looking for. This 600Mb optical drive offers the storage capacity of a CD-ROM but with a major difference – you can write to it as

many times as you like (unlike WORM drives which can be written to only once). What's more, it uses removable cartridges, which allow you to increase the storage capacity still further simply by buying new cartridges.

No price details are available yet, but I'll let you know as soon as Xetec get back to me.

Xetec is on 010 913 827 0685.

## SNIPPETS...

Comms fans after even faster transfer rates may well be interested in the new SupraModem 9600 from the Supra Corporation. It supports the V32/V42bis standard which allows rates of up to 38,400 bits per second (bps) – that's over 16 times faster than even the fastest 2400 baud modem!

The unit offers full error correction and automatic adjustment to the optimum rate and protocol. It costs \$700.

For more details contact Supra on 010 180 0727 8772.

Fancy a completely hard disk-based Amiga 500? If so, then ICD's new Prime may be for you.

It's a high performance internal hard drive system for the A500 that replaces the internal drive inside the machine with a high speed SCSI drive. And, with ICD's Shredfast extension, you can have your external drive (you'll have to buy one if you want to use floppies) act as drive DFE.

For more, phone ICD's UK distributor Silca Systems on 081-339 1111.

Jason Halborn

# ST

- Mac or PC: which should the ST emulate?
- British adventure with the Lucasfilm feel
- Control a whole MIDI empire from your ST

## FOURTH AND FINAL ST

Atari has some serious plans for the ST. Sam Trammel revealed that the company has four new STs on the way. It has already announced the two portable STs, Style and Padi, and has even shown prototypes of the machines at a Chicago show three months ago. The Falcon super-computer is the third ST and now details of the fourth are coming to light.

The computer press has been buzzing with the news that the fourth ST would be an ST-PC, or an ST with a PC emulator inside its case. Everyone at Atari denies this will become reality, but now the full story is emerging.

It seems that Atari has been toying with the idea of an officially badged PC emulating ST for a long time. It produced a couple of machines and ran feasibility checks on whether such a machine would sell. However, during this research period the company apparently decided against it.

On the face of it, an ST-PC seems like a great idea. Not only would you have all the benefits of the massive

range of software for the ST, but also the capability to run PC software. Most businesses still cling to the MS-DOS standard, so an ST this capability would have massive cross-market appeal. However, there are inherent problems associated with this.

For a start, no matter which PC emulator Atari used, you still couldn't run colour VGA graphics. These days the only PCs worth their exorbitant price are VGA (that is high resolution) machines. The vast majority of emulators available for the ST only support monochrome CGA or EGA graphics at a vastly reduced speed.

Given these limitations and the cost of releasing an ST which did emulate a VGA PC I feel that Atari would be unwise to release such a machine. After all, you can buy a PC very cheaply these days and files from these computers can be read straight from the desktop by any of the STs.

What would be a clever idea would be for Atari to release an Apple

Continued on next page >

Supra

# MODEMS

## AMIGA/ATARI/PC MODEMS

Supra 2400 (2400 baud)	£120
Supra MNP 2400 (2400 baud error correcting)	£165
Supra 2400 Plus (The ultimate 2400 baud modem, 9600 baud throughput)	£199

**HST MODEMS**  
(9600/14400 BAUD)  
**£595**

Supra Modems are guaranteed for 4 years and are auto-dial, auto-answer and fully Hayes compatible. Prices include VAT. Free computer cable with every modem.

**081-566-3639**

SUPPLY SOLUTIONS,  
PO BOX 2136, LONDON, W13 8QJ  
Supra approved distributor • Open till 7pm



# WHY WAIT? MSDOS 5

Full Version (not upgrade)

# £59

While stocks last!

**TEL: 0922 616733**  
**FAX: 616737**

All prices exclude Vat. P&P U.K. £2.50



NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

## MACHINE SPECIFICS



• Most of the best graphic adventures come from the US, but Vengeance from Revolution Software shows that the British can still produce the goods. Look out for it on the shop shelves soon.

◀ **Macintosh emulating ST.** The Spectre GCR cartridge which is produced by Gadgets by Small in America is a superb piece of hardware which has many advantages over the expensive Mac Classic, Mac Plus and SE/30 computers, not least of which is the extremely fast hard drive accessing speeds.

But the Spectre GCR is an expensive cartridge – to buy it with the Apple ROMs you won't get much change from £400. However, other companies attempting to get around the tight Apple copyright laws have produced clean laboratory versions of the Apple ROMs which don't include any of the original

code. These chips could be mass produced and released cheaply, making Macintosh clones a major possibility.

If Atari decided to produce a Mac-emulating ST, this is the only root it could take. It is also the most obvious. If Atari wishes to snatch some of the Apple business market, this is one way it could do it.

## BACK WITH A VENGEANCE

There's something about a graphic adventure which enables you to really climb inside the game to an extent that you never can with a simplistic shoot-'em-up. The vast majority of these

games originate in America, so it's nice to see a British software house creating its own graphic world.

Vengeance is an adventure set in the Dark Ages. It has been produced by the Revolution Software team, which has developed a system called 'Virtual Theatre', a graphic adventure environment much like Lucasfilm's point and click system. The first results of this are nearly ready and they look excellent.

The graphics are top notch, detailed backgrounds with excellent touches – the slowly wafting torches on dungeon walls add much to the atmosphere.

The characters you meet in the game all have very strong, individual personalities. The character interaction has been cleverly devised and shows many elements of Lucasfilm's speech environment; you're given four choices of questions to ask and these questions lead to others in a kind of branch effect.

If you're lucky, some of the

characters will join forces with you. One of these willing minions is a chap named Ratpouch, a tailed court jester you help to escape from jail. Ratpouch may or may not help you but wanders around, getting in the way when you least want him to.

The plot of the game involves destroying an evil magician who's been doing all sorts of nasty things to your quaint Dungeons and Dragons-type world. There are hundreds of puzzles to solve along the way, most of which can only be fathomed if you talk to all the people. The unfinished version I saw looked brilliant and I wait with bated mouse for the final version.

Andy Hutchinson

Andy Hutchinson is news editor on ST Format the UK's biggest and best magazine for the whole Atari range. Buy it from your newspaper every month.

## A RECORDING STUDIO IN YOUR HOME

Everlode Soundworks has put together a rather tasty new bundle. These chaps are the British distributors of the Steinberg range of MIDI software which includes Cubase and Cubase!

The Steinberg Studio/Pac comprises the Cubase sequencing program and the Mixer Plus hardware system and costs \$945. Cubase has recently been updated and now represents the only serious rival to C-lab's Notator package.

Basically MideX Plus enables you to connect a whole wedge of MIDI devices to your ST, all controlled by Cubase.

Everlode Soundworks lives at The Studio, Church Street, Stainesfold, Colindale, 087 285.

TF 2913 888484

**NDT SYSTEMS**  
**80386SX-20**  
**£735**  
**TEL: 0922 616733**  
**FAX: 616737**  
All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier

    **NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU**

[illegible]

# PC

- New low cost DTP program from Microsoft
- The 8514/A is dead - long live the XGA
- Ventura for Windows in glorious colour!

## MICROSOFT TURNS PUBLISHER

Microsoft is completing work on an entry-level desktop publishing [DTP] program for Windows slated for an Autumn release. Publisher for Windows, expected to sell for under £100, will also be Microsoft's first DTP package.

Publisher includes Page Wizard, a tool which enables you to custom design your own pages determining such things as the number of columns and where pictures should go. It also includes a spelling checker, a text editor and a 'borders' feature, which duplicates a picture around the edges of a document.

However, what Publisher lacks is sophisticated graphics and frame-handling capability - you cannot link a picture within a frame to its caption. And it doesn't have any style sheets either. ☎ Call Microsoft on 0734 500741.

## COLOUR VENTURA

Sophisticated colour capabilities within Ventura, which have previously been the sole domain of the Macintosh, will now

make the transition to Windows via a joint development agreement between Ventura and Pre-Press. The new colour facilities let users view images on screen in full colour, rather than seeing a black 'X' where the graphics are to be placed.

The development effort between

Pre-Press and Ventura has also resulted in four new modules - a scanning program, an image manipulation program, a colour separator for novice users and a professional colour separation program.

Each will be sold as 'Professional Extensions' to the base publishing product but each can be used as stand-alone products that will be accessible directly from the Ventura Publisher for Windows menu.

## 8514/A BITES DUST

IBM is to discontinue its high-resolution 8514/A graphics board from October 2, although it will support boards that are in use. The move may help to promote XGA - a graphics board IBM wants to

establish as the next desktop computer standard - but it won't be welcome to non-PS/2 and low-end computer users.

Although the document lists XGA as a replacement product for 8514/A, it can't be used in 200 or non-Micro Channel Architecture computers (ie, ISA and EISA), two areas where third party versions of 8514/A could be used. IBM has promised to release an ISA version of XGA, but hasn't said when it will be ready to ship.

## MERGE SURGE

Is it the hot weather or something? First Sorland and Ashton-Tate merge and now Novell is set to buy out Digital Research for a mere \$80 million.

Continued on next page ➤

## LARRY 4, ER, 5!

Leisure Suit Larry is back in his fourth adventure - although for some reason it will be known as Leisure Suit Larry 5: Passionate Pools Does a Little Undercover Work (don't ask, it's a long story).

In the latest episode you play both Patti and Larry. While Patti investigates corruption in the music business for the FBI, Larry hunts for the 'Sexiest Woman' - nothing changes, huh?

Leisure Suit Larry 5 promises to be raunchy, sexy and thoroughly disgusting - much to the relief of the many Sierra fans out there!

☎ Call Sierra on 0734 303322.

No, even *you*, girl! LUG



• For some very strange reason the fourth Leisure Suit Larry game is being numbered version five!

## IBM PC MUSIC SOFTWARE



If you want to make music with your PC, talk to us. We have been in the field of computer music for six years, and our staff are fully able to advise you on your music requirements. We have products to suit all tastes at prices to match. Give us a call today!

## Finale 2 is here!

The definitive music DTP program for the IBM PC.

☞ Finale runs under Windows 3 (compatible with Adobe Type Manager).

☞ Finale notates in real-time via MIDI, as well as reading and writing Standard MIDI Files.

☞ Finale prints to any printer supported by Windows.

☞ Finale has the best resolution of any music program!

☞ Finale has overwhelming music editing options.

Finale is the most capable notation program

available...it will notate just about anything, and the results look gorgeous.

Keyboard/February 1991

Finale 2 costs £699 (including VAT at 17.5%)



## Voyetra Sequencer Plus Version 4

Voyetra Sequencer Plus is arguably the industry standard sequencer for IBM machines. It is in use in many commercial recording studios worldwide. Version 4 supports almost all MIDI interfaces (including the IBM PS/1 MIDI card) and sound cards (including Ad Lib, SoundBlaster & Roland LAPC-1 cards).

'an extraordinary sequencer...maintaining an admirable balance between editing power and straightforward operation.'

PC Magazine

These are just a few of our products. Please call for a catalogue

Computer  
MUSIC Systems Ltd

No-one knows PC music better!

5-7 Buck Street,  
London NW1 8NJ.  
Tel 071-482 5224



# SYSTEMS

# 80286-16

# £496

TEL: 0922 616733  
FAX: 616737

All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier






NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

## MACHINE SPECIFICS

▲ In May AT&T spent \$7.2 billion for NCR and Lotus spent \$65 million on Samna Corp last Autumn.

However, it appears that the sudden flurry of mergers has been sparked by a new marketing trend. Doug Koss, an analyst with DataQuest, explained, "There is a whole new marketer mentality. Isolated technology is not as effective as earlier in the industry's history. Buy-outs, mergers, acquisitions and strategic alliances are becoming part and parcel of how the industry does business."

It appears that the by-word is diversification - companies devoted to one primary product just cannot afford to go it alone. However, firms in niche markets, such as graphics, have a greater opportunity to grow by expanding into related categories. The merger trend is, apparently, the industry maturing rather than a levelling off of growth.

"This is a concentration, not consolidation," added Charlie Federman of Broadview Associates, an American firm specialising in software mergers. "Consolidation implies that the industry is shrinking and there are a smaller number of companies. That just isn't the

case. With this growth comes bigger companies that can now afford to make larger purchases."

This encourages the formation and development of smaller companies. Well, that's the theory anyway.

## NEW SHARPER PEN

Microsoft's latest beta version of the Windows for Pen Computing OS incorporates features specifically designed to take advantage of the pen-based platform.

New features include such capabilities as gesture support, which will allow you to create simplified macros. For example, you could establish a set of movements for inserting a paragraph of text, or boldfacing an area.

The system will also include training on the fly, which conditions the operating system to the user's personal handwriting style.

Pen-aware features in Windows for Pen Computing are comparable to those in Go Corp's PenPoint, such as context-sensitive editing, handwriting customisation, and 'raw ink', which refers to text that is left untranslated on screen. Microsoft is on track to meet its deadlines and aims to ship the final version of its OS in December.

In early September, Microsoft plans to release another beta that will include a completely rewritten handwriting recognition engine which will be able to recognise overlapping letters.

Paul Rigby

## CPC

- Codemasters' Quattro Cartoon reviewed
- Help for 3.5-inch disk drive owners
- Cheats to banish those multiface blues

## QUATTRO CARTOON

Just how big is Codemasters' back-catalogue of games? The company has just released its simplest Quattro completion, and shows no sign of slowing up.

The Quattro picks all contain four full games, but sell for a budget price of £3.99. And the latest offering, Quattro Cartoon looks particularly good value.

On offer are:

● **Wizard Willy** is an excellent, amusing platform game. You play the part of Willy, and your job is to kill all the monsters in your path using your trusty magic lightning bolts. You can pick up extra energy and points along the way, and special 'vanish' spells (smart bombs) for when things get too hectic.

The graphics are excellent, the soundtrack is brilliant and Wizard Willy is superbly playable.

Codemasters could have got away with selling it as a full-price game (but keep your voice down!)

● **Little Puff** is even more cute. He's a little dragon who's accidentally become lost, and all he wants to do is find his way home. Unfortunately, he can't get back into dragon-land without collecting four passes scattered about the landscape.



• Wizard Willy: excellent graphics, a great soundtrack and real playability

## DOS 5 CORNER

A quickly - when you upgrade to DOS 5 dump your SHARE utility. You no longer need it for large hard disk partitions.

# MEMORY SCOOPS BY TERRABYTE THE MEMORY PEOPLE

4Mb of 1 Meg x 9 Simms 80ns  
**£119.95**

4Mb of 1 Meg x 9 Simms 60ns  
**£151.05**

4Mb of 1 Meg x 9 Simms 70ns  
**£126.00**

16Mb of 4 Meg x 9 Simms 80ns  
**£499.95**

**CALL FOR PRICES ON SINGLE ITEMS**

PRICES EXCLUDE CARRIAGE AND VAT.  
CARRIAGE CHARGED AT £5.00

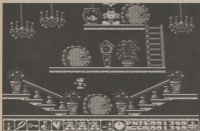
**TERRABYTE ELECTRONICS LTD.**

**6A CHAPEL WAY, BOTLEY, OXON. OX2 9LX**

**TEL: (0865) 794848 FAX: (0865) 728761**



## MACHINE SPECIFICS



• The excellent *OLI* and *Lisa 3* is the best of a very good bunch on the latest Quattro games compilation

Needless to say, they're pretty well hidden, and there are plenty of monsters out to stop you getting them. However, there are objects you can collect to help you. The graphics aren't in the same league as *Wizard Willy's*, but they're still not bad, and the game plays nicely.

● *Frankenstein Junior* is distinctly grisly. Your cobbled-together dad has come uncobbled, and you have to go round collecting the various bits and pieces of his bod so that you can put him together again. The action's fast and furious, but there's really not a lot to it.

● In *OLI* & *Lisa 3* the sponymous characters want to build a car, but they don't have all the parts. These are to be

found in the rooms of a castle – but which rooms? Not only that, but parts of the casts are invisible until you've collected a magnifying glass.

Once you've collected all the bits and pieces you still have to put them together. This means finding the right tools and the chassis itself. The graphics are pleasant and well-animated, though the control method takes a bit of getting used to. Get round that and you're looking at the best game of the bunch.

For £3.99, it seems churlish to pick fault, doesn't it? These Quattro compilations really are stupidly good value for money. The only weak game on this latest compilation is

*Frankenstein Junior*, but even that's good for a couple of hours on a wet Wednesday afternoon. The other three are little gems.

### MULTIFACE TIPS

Here's a tip sent in by Mike Sobodzin a while ago now. It might help a few people struggling to save games with the Multiface.

"You all know that Multiface 2 Plus does not save all your games properly and some of them will crash (*Bubble Bobble*, *Super Hang-On*). I have found a way round this:

- 1 After a failed attempt at loading the desired game – and you're sure it was the fault of the Multiface – reset the computer.
- 2 Press the red button, but don't take your finger off.
- 3 Press the reset button and let go, still keeping your finger on the red

button.

4 Let go of it now, and the computer should either return to BASIC, or press R for Return, and then it should reset.

5 Load the required game straight away.

6 When it has loaded, press the red button (followed by Clear if it is not a 6128-only game), and save to your disk straight away. Switch the computer off and then load in from your saved disk.

This should work for everybody with a Multiface 2 Plus. It works for me, and I now have just about all my tape games on disk."

Rod Lawton

Rod Lawton is editor of *Amstrad Action*, the biggest, best and brightest magazine for the Amstrad CPC. Buy it from your newsagent every month.

## SWAPPING ASCII FILES

If you have a 3.5-inch second drive, the chances are that sooner or later you'll be wanting to experiment with swapping ASCII text files with IBM PC clones.

Well, it won't always work. And it could be due to something painfully simple, as Mike Parker of Hellenburgh, Dumfrieshire, explains:

"When using a large capacity

second drive and IBM PC compatible file formats, always type upper case letters when you save your files. The software does not necessarily do the lower to upper conversion found in AMSDOS and some IBM clones will not read filenames in lower case ASCII."

Anybody out there kidding themselves? Easy when you know how...

## SUMMER BONANZA

AMSTRAD PC 1612 DD + MONO DISPLAY	260
AMSTRAD PCW 8512 WP SYSTEM	299
AMSTRAD PCW 9512 + ASF	375
AMSTRAD PC 1640 DD + ECD DISPLAY	375
AMSTRAD PC 2386 65Mb + MONO VGA	850
AMSTRAD FX 5000 FAX	299
AMSTRAD PC 2286 40Mb 14" HRCD	750
AMSTRAD PPC 640 DD Portable (Inc Modem)	250
OLIVETTI PCS 286 20Mb VGA COLOUR	750
OLIVETTI PCS 86 20Mb VGA COLOUR	550
CANON BUBBLE JET BJ10E	210
AUTOCAD VERSION 10	500
LOTUS 1,2,3 REL 3 SERVER EDITION	200

ALL EQUIPMENT IS NEW AND COVERED BY  
MANUFACTURERS WARRANTY  
OTHER CONFIGURATIONS AVAILABLE

PLEASE ENQUIRE DEPT NCE

COMPUTER CONNECTIONS  
0254 813316  
(BLACKBURN, LANCs)

CARRIAGE AND VAT EXTRA, MAJOR CREDIT CARDS TAKEN.

NDT SYSTEMS

80386DX-25

£895

TEL: 0922 616733  
FAX: 616737

All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier

NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

VISA Access E

## MACHINE SPECIFICS

## C64

- 3-D Construction Kit review special
- Create your own games and worlds!
- Cheats galore for the Hits compilation

## CONSTRUCTIVE CRITICISM

3-D Construction Kit is here. And what a corker it is, too!

Having first flicked through the rather hefty manual I was very tentative when loading the package. But I needn't have been.

It loads in three sections:

- The Environment editor allows you to create and manipulate your 3-D world.
- The Condition Editor is where the game's conditions (or rules) are specified.



• The 3-D Construction Kit is the definitive games creation package

- The Compiler, which transforms your creation into a standalone game.

The basics behind 3-DCK are very simple. Your 3-D world is divided into 'areas' of which up to 254 can be used in each game. You cannot go beyond the boundaries of an area, but entrances can be defined using the editor.

Once an area has been established you can begin to build whatever it is you want to build. A potential nightmare? Nope! Incredibly simple in fact.

You summon 3-D shapes (cuboids

and pyramids), and 2-D shapes (rectangles, lines, triangles, hexagons, quadrilaterals and pentagons) into your world, where they can be stretched, shrunk, rotated, moved and shaded. This is initially awkward owing to the icons not being specified in the manual, but the concept soon becomes second nature.

To build more complicated structures, different shapes must be joined together. For instance, I made a house from a stretched cuboid with a stretched pyramid on top. The door was a 2-D rectangle pushed right up to the cuboid, which, incidentally, is how all doors are created (not to mention windows). And it all took just minutes.

Shading is a breeze - the desired face of the current object is selected, then the required hue is highlighted and bingo. It's just a pity there is no facility to create your own colour combinations. Having said that it can be done with a machine-code monitor.

## TOTAL CONDITIONING

When you have constructed your world, the real work begins when you load your environment into the condition editor. 3-DCK utilizes the Freescape Command Language (FCL) which consists of 40 or so commands and small routines (or procedures) can be constructed to bring the game to life.

This is possibly the one factor which will deter many people from taking the plunge, as many are reluctant to learn new languages.

- GENERAL conditions are those which

are executed constantly, such as score, energy levels, etc; all essential checks and tests should be included.

● LOCAL conditions only apply to the area currently occupied and are concerned with all processes in that area.

The language is a step up from BASIC, indeed very easy to pick up. Variables can be manipulated (for scores, etc), colours changed, objects destroyed or moved, sensors activated, text messages displayed, and sound effects triggered.

Creating your world could take a matter of hours, but the FCL will take quite a while to master. But let's face it, you can't expect to have a complete game up and running without any effort whatsoever.

Your final game can be enhanced by an attractive border, created using the Advanced Art Studio, although the examples included could be used if you're hopeless at art.

In conclusion, the 3-DCK is the games creation package, and a whole lot more besides - I know of one chap who used it to plan out a house extension! Creating something along the scale of previous Freescape games is possible, but will take time. Indeed memory is tight right from the start.

If you are prepared to master the Freescape command language, and have the imagination to create amazing 3-D worlds, then 3-D Construction Kit is all you will ever need. The whole package is almost flawless, with only a few leery little quirks.

**NDT SYSTEMS**

**80386AMD-40**

**£1095**

**TEL: 0922 616733**  
**FAX: 616737**

All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier



NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

**ANALOGIC ANALOGIC ANALOGIC**

ANALOGIC COMPUTERS (UK) LTD  
152 Letchmore Road  
Kingston-upon-Thames  
Surrey KT2 5TU

Tel. Mon - Sat  
10am to 5pm  
TEL: 081 546 9375  
FAX: TEL: 081-841-4871

## SPECIAL OFFER COMPUTERS Amiga/Atari

520 STE Discovery Extra Pack.....1 Meg	£399.00
1040 STE Family Curriculum Pack.....1 Meg	£349.00
Amiga 500 + Mouse + Modulator	£299.00
Amiga 500 Cartoon Classics	£355.00
Amiga 500 Screen Gen	£355.00

## AMIGA/ATARI DRIVES

1 Meg 3.5" internal (SONY)	£49.95
1 Meg 3.5" external	£59.95

## PHILIPS 15" COLOUR TV/MONITOR Remote Control + Scan Cable

£239.00

## ATARI MEMORY UPGRADES WHILE YOU WAIT!

1. 520 ST-STM-STP/STFM to 1 Meg	£59.95
2. 520 ST-STM-STP/STFM to 2.5 Meg	£159.95
3. 520 STE to 1 Meg	£29.95
4. 520 STE to 2 Meg	£89.95
5. 520 STE to 4 Meg	£169.95

**FREE FITTING**

## ★ We specialise in Surface Mount Chips

512K RAM + Clock for Amiga 500	29.95
Amiga/Atari Mouse	24.95

AMIGA AND ATARI REPAIRS WITHOUT DIAGNOSTIC FEES  
★ FIXED CHARGES FAST TURNAROUND

520/1040 (STFM/STE)	£59.95
Amiga 500	£49.95

## POWER SUPPLIES for ST with 1 year guarantee

£49.95

- \* ALL PRICES INCLUDE VAT AND NEXT DAY DELIVERY
- \* NEW: WE PROVIDE PICKUP SERVICE FROM YOUR PREMISES FOR ONLY £5.00 + VAT £. TO REPAIR FAULTY COMPUTER.
- 2. TO UPGRADE MEMORY



A final point to note: if you buy the Kit from your local software store you will receive the program itself (on tape/disc), the manual plus a tutorial video. However if the Kit is ordered from the Home Computer Club the video is not included. This is due to Doris/WH Smith having different contractual rights with Inco/Brit, and indeed there is a hefty price difference.

Andy Roberts

## SPECTRUM

- Getting in touch with cheap modems
- Garner Designs responds to its critics
- Revealed! All 30 passwords for Riptoff

### CHEATS GALORE

Even though the Hits compilation isn't available in the shops until September, the following cheats may be welcomed by people who own any of the games separately:

- **Retrograde** - Type I HATE BROS at the very bottom-right of the screen before loading the game.
- **Snake** - Holding down one of the function keys when pressing fire to start the game will activate a cheat; one gives infinite lives, one immunity to pits, the other immunity to aliens.
- **Summer Camp** - Enter your name as CALAMITY on the high score table for infinite lives.
- **Crestaine** - Plug your joystick into port one and wait for the title music to stop, then wiggle your joystick like crazy when the high score table appears - when the Clydes turn grey, put the joystick back into port two to start the game with a difference.

### CHEAP MODEMS

The wonderful and exciting world of computer comms is also a pretty expensive one. Never having enough cash for the necessary state of the art communications equipment, not to mention living in fear of telephone bills larger than the national debt of Brazil, comms is an experience which I have always missed out on.

That could all soon change, though, with the discovery of dirt cheap modems. A company called BG Services is selling the standard Speccy modems, the VT3500 for £159 (£225 for a Plus 3Plus 2A version). This represents astonishing value for money and at little more than the price of your average piece of software gives you access to bulletin boards, telesoftware and multi-user games amongst other stuff.

I think I can safely say this is a genuine bargain and almost certainly the cheapest way of involving yourself in the world of telecommunication.

Contact BG services at 64 Roebuck Road, Chessington, Surrey KT19 1JX for more details.

### KEYPAD CORRECTION

A few columns back, Daniel Wyness revealed the deep secrets of the mysterious 128K hidden editing functions. Well, Alan D Cox of Dyled has got in touch to tell us of a few omissions.

- Delete from the character the cursor is on and as far as the next space to the right should be Extended mode then W.
- Cursor to the start of line can also be graph key, Y, graph key.
- Cursor to the end of line can also be graph, X, graph.
- Graph, W, graph or Extended mode then N moves the cursor to the beginning of the program.
- Graph, V, graph or E mode then T goes to the end of the program.

### GARNER REPLIES

The Garner Designs debacle continues this week. Regular readers will probably remember reading two letters in this column recently criticising Garner Designs, one time organiser of the acclaimed Plus 3 Users' Group and now publisher of Sinclair & SAM Computing magazine.

I asked for further response and got plenty of it from other dissatisfied customers as well as Daniel Garner himself. Paul Glover, Leslie Lee, James Patten and John Lord all wrote complaining of cashed cheques, long waits and disappearing goods when ordering things from the company.

Some had been previously happy members of Plus300 and soon genuinely disappointed in the poor service they've experienced lately in one way or another.

James Patten summed up feeling well by putting the question, 'Are they a group of enthusiasts who have bitten off more than they can chew or budding entrepreneurs who think only of profits and forget the customer?'

Phil Glover asked 'If Designs is trying its best to produce the magazine and supply mail order goods it needs encouragement and understanding, but we need to be told what's going on.'

Which is exactly what Daniel Garner, proprietor of Garner Designs, wrote to tell me about. I've had to chop bits out of his letter but hopefully this is a pretty fair summary version.

In reference to the non arrival of orders and long delays, Garner did lay some of the blame with his local sorting office which has given him, 'intermittent, yet persistent, problems with our (and other companies' and individuals') post going astray...'

However, he goes on to say, 'There have been some delays at our end since'

Continued on next page >



# SYSTEMS

# 80486DX-33

# £1655

**TEL: 0922 616733**  
**FAX: 616737**

All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier






NDT - Unit 18, Corporation St West, Walsall, West Midlands WS1 4DU

## NEW AGE COMPUTING

Proudly presents...

### THE SOUND ENHANCER!

Probably the most revolutionary development on the AMIGA this year!

HIGH QUALITY FILTERING HARDWARE  
PRODUCES GOOD SOUND EVEN FROM  
THE WORST SAMPLES!

- ★ REQUIRES NO EXTERNAL POWER ★
- ★ ON/OFF SWITCH/THROUGH PORT ★
- ★ CONTROLLABLE FILTERING ★

If you thought the Amiga had good sound...  
"You aint heard nothin' yet!"

You've SEEN the reviews, now HEAR for yourself!

**SOUND ENHANCER £34.95**  
**+ MUSIC DISK + £2 P&P = £36.95**

**CREDIT CARDS - 0992 465366**  
Cheques/postal orders payable to "NEW AGE COMPUTING"

New Age Computing, Dept NCE, 187 Perrysfield Road, Cheshunt, Herts, EN8 0TL.  
Telephone: (0992) 465366 Fax: (0992) 450009

## MACHINE SPECIFICS

◀ early 1991 caused by the massive undertaking required to launch *Starline* & *SAM Computing*.

While we believed the new magazine would be popular we did not, and I believe could never, foresee the sheer number of new subscribers we received within an extremely short period.

For a company, which at that time was geared up to deal with the relatively small scale associated with the Plus3 User Group to be suddenly and unexpectedly having to cope with a flood of subscriptions, it is inevitable that the system would not cope.

Having said that, I think we've done extraordinarily well in coping and the backlog is quickly vanishing day by day. Within a couple of weeks we shall be up to the operating speed which you and your readers so often associated with

the Plus3UG. We've also taken measures to ensure such delays do not recur should we get another large increase in orders again.

So to sum up, you have my personal assurance that *Starline* Design's is working flat out (and I mean 110 per cent flat out) to clear what backlog remains. We have done, and will always continue to provide back up to all our customers, even when we don't have to.

Many thanks to Daniel for putting the matter straight. *Starline* Design's has been one of the Spooky users' staunchest allies and best friends in the past. Let's hope it can regain its old form and return to its professional and user friendly ways without delay. Sorting out the above readers problems would be a good move in that direction.

Robin Alway

## PSSST, WHAT'S THE PASSWORD?

Here for the sake of your sanity, score and game playing reputation are all 30 of the level passwords for *Ripoff*, the really rather good game recently included on a Year *Starline* cover tape. They were painstakingly uncovered by two lathful Spooky tipsters, Matthew Will and Mark Harris.

1 UNBAMBOO?	9 BAD	17 KIT-KAT	25 SPAFO99
2 WEE PAUL	10 LORISH	18 GEEZAHAND	26 HARLEQUIN
3 MONOCHROME	11 GLOBRITS	19 PLOSCHAMF	27 BAGGUILAI
4 MOUSSE	12 OBERORANT	20 GOLDS PITY	28 SAWO BWARD
5 2061	13 SKEEM	21 TRI CLASRO	29 ELASNO KLA
6 SIMPLE	14 FRUSTRATIN	22 FAR 2 TUFF	30 CRUK ROME
7 MAJULEY	15 HANORPSS2	23 PUDDLEGUM	
8 YOU B—O—O	16 GALLOSNO	24 KANGIS BLO	Thanks guys!

## MACINTOSH

- Notebook-sized Macintosh 'clone'
- New Claris integrated software launched
- Secrets of the 'Map' desk accessory

## RUMOURS...

Apple has finally announced its deal with a Soviet computer distributor, as predicted in this column two weeks ago.

The Moscow-based company, Intermicro, is to receive its first shipments of Macs in September. According to the company's technical director, Anatoly Karachinsky, plans are in hand to release local language editions of several Mac packages by the end of the year.

A top Apple executive, Pacific region vice president Ian Dary, has been quoted in an Australian newspaper as saying that IBM is vital to Apple's future. When asked what he thought about the possibility of the recently-announced Apple/IBM deal failing, he replied, 'I don't like to think'.

He also said that he expected the link with IBM to add at least \$1 billion per year to Apple sales, starting in two or three years' time.

What US Apple chiefs think about one of their executives admitting things like this is not known...

The Massachusetts Department of

Revenue has thrown a slight spanner into the works of the Boston MacWorld Expo. The Department has decided that any company selling goods at the show will be liable for collecting Massachusetts sales tax for the rest of the financial year.

This will provide major administrative headaches for many companies and at least one, the MacConnection division of PC Connection, a New Hampshire-based firm, has pulled out of the show because of the decision.

According to David Hall, executive vice president of PC Connection, the show wasn't worth the risk of being stuck with the sales tax liability.

## OUTBOUND NOTEBOOK

Remember the Outbound Laptop? You know, that's the Apple-approved, Mac-compatible machine which 'looks' to a Macintosh. Well, apparently Outbound is about to ship something called the 'Outbound Notebook System' in the next couple of weeks. This is a computer which provides full Mac compatibility in a notebook-sized case.

# DIRECT DELIVERY SERVICES

## SUPPLIERS OF MULTI LISTING COMPUTER PAPER

7 BRITTANY COURT, HIGH STREET SOUTH, DUNSTABLE, BEDFORDSHIRE, LU6 3HR  
Telephone: (0582) 667999

Direct Delivery Services - wholesale suppliers of  
computer listing paper, facsimile rolls, computer labels

## IF YOU HAVE A PRINTER - WE HAVE THE PAPER

## COMPUTER LABELS

COMPUTER LABELS								
CODE	PRODUCT	QUANTITY	1 BOX	SIZE	X-WEB	QUANTITY	PRICE	
A1	11 x 9.5	60 GSM	Plain + MR	2000	64 x 36	3	12000	£34.69
A2	11 x 9.5	70 GSM	Plain + MR	2000	70 x 36	1	4000	£15.31
A3	2 Part	NCR	Plain Super	1000	80 x 36	4	16000	£49.47
A6	3 Part	NCR	Plain Super	750	89 x 24	1	2000	£8.25
A7	4 Part	NCR	Plain Super	500	89 x 36	3	12000	£17.47
A8	11 x 14.5	60 GSM	Plain + MR	2000	89 x 36	3	12000	£42.50
A10	11 x 14.5	60 GSM	Half inch green bars	2000	89 x 36	2	8000	£30.37
A11	11 x 14.5	70 GSM	Plain	2000	89 x 36	1	2000	£10.50
A12	11 x 14.5	70 GSM	Music Rule	2000	89 x 48	1	3000	£42.20
A13	11.67 x 9.5	60 GSM	Micro perf (A4)	2000	89 x 49	1	2000	£18.86
A14	11.67 x 9.5	70 GSM	Plain Micro perf	2000	102 x 36	1	2000	£11.30
A15	11.67 x 9.5	80 GSM	Plain Micro perf	1500	102 x 36	2	8000	£35.29
A16	11.67 x 9.5	60 GSM	Plain Micro perf	2000	102 x 36	2	2000	£12.11
A17	12 x 9.25	60 GSM	Plain Micro perf	2000	102 x 36	3	12000	£46.65
A18	12 x 9.25	70 GSM	Plain Micro perf	2000	102 x 36	1	4000	£19.57
A19	12 x 9.25	80 GSM	Plain Micro perf	2000	102 x 49	2	2000	£14.89
					102 x 49	1	6000	£36.57
					102 x 49	1	2000	£14.39
FACSIMILE ROLLS								
CODE	SIZE							

## FACSIMILE ROLLS

CODE	SIZE	QUANTITY	PRICE
A20	210 x 50 x 25	12 Pack	£48.25
A21	216 x 100 x 25	6 Pack	£44.69
A22	210 x 100 x 25	6 Pack	£43.49
A23	210 x 30 x 25	12 Pack	£31.65
A24	210 x 30 x 12.7	12 Pack	£31.65
A25	216 x 30 x 12.7	12 Pack	£32.81

## 3.5" DSDD DISKS

QUANTITY	PRICE
50	£23.00
100	£36.00
200	£67.00
500	£145.00
1000	£285.00

This is just a small selection. We have far more for all machine models. All prices exclude VAT. All prices include delivery U.K. Mainland.  
Cheques/P.O.'s made payable to D.D.S., 7 Brittany Court, High Street South, Dunstable, Bedfordshire, LU6 3HR.  
Telephone: (0582) 667999. Fax: (0582) 602508

Weighing around 6lb, the Outbound notebook is 11x8.5x2.5-inches in size when folded down, and can be configured to include both a standard 3.5-inch floppy drive and an internal hard disk of up to 65MB—in direct contrast to Apple's new portable machine, expected in October, which will need an external floppy disk drive.

The notebook's mouse replacement is a new version of the company's ioPoint device, called the TrackBar, and the display is likely to be a sidelet, 10-inch LCD.

Powered by the type of batteries normally found in portable calculators, the notebook will be available in a number of different configurations, ranging from a 20MHz 58000 processor machine up to a full 33MHz 68030, and will be able to support a RAM disk of up to 60MB in size. The price of the machine will start at around \$2,800 and will go up to \$4,299 for a 68030 machine with 60MB hard disk.

Expect to see the new Outbound Notebook on sale in this country in about two months' time—we full details of UK prices as soon as we get them.

## CLARIS INTEGRATED SOFTWARE

Apple subsidiary Claris has announced the release of ClarisWorks, a new integrated software system which is targeted at first-time buyers of the Mac.

ClarisWorks features several integrated 'modules': a word processor, graphics module, spreadsheet, charting,

database management and a communications unit. Unlike other integrated packages, ClarisWorks doesn't force the user to switch between different modules to perform different tasks; instead, all tools are available from within the main document window.

Because the modules within the program are based on Claris' own programs such as MacWrite, MacDraw, Resolve (the spreadsheet) and FileMaker (the database), ClarisWorks is an ideal first buy for people who can then upgrade to the fully functional programs if they wish.

The suggested retail price for the package is £195; in addition, owners of

Microsoft Works, Symantec's GreatWorks and PageTime can 'upgrade' to ClarisWorks for £80.

For further details contact Software Distribution on 081-642 4042.

## PRODUCT NEWS

Albays has announced that Fontographer 3.3 is now shipping.

The new version of the program has been upgraded to include the ability to read and write TrueType fonts for the Mac and PC (at least, for PCs running Windows 3.1, which will have TrueType support but which was supposed to have been released in January).

Fontographer is virtually an industry-standard font creation package, so the

inclusion of TrueType support is vital if the program is to maintain its position in the market.

For further details contact Software Distribution on 081-642 4042.

Microsoft has announced a product called Microsoft Project, which is a powerful and flexible graphical tool for managing project schedules, tasks, budgets and resources. 'Nope, I don't know what that means either, but if your eyes lit up when you read the quote the you'll be pleased to hear that the program will be available in August' at the suggested retail price is £495.

Microsoft is on 0734 500741.

Ian Wragley

## POSTCARD FROM AMERICA



The original Macintosh bundle came with a handful of little utility programs called 'Desk Accessories', available only through the Apple menu. System 7 has almost done away with DAs, so that any file or application can now be put under the apple. Other new types of small, but useful programs, Control Panel Devices (CDEVs) and Extensions (formerly INITs), have become popular as the Mac has grown up. The Map Control Panel is a good example.

Even modest programs have hidden features. Here's more than you ever wanted to know about the Map.

The standard Map is black and white, but colour machines were not forgotten. In the System 7 Scrapbook is a colour PICT of a world map which was specifically designed to replace the standard map. In fact, any PICT can be pasted in—Mickey Mouse or a friend's naughty kids can become your home town.

If you're having trouble seeing your place on the map, try

holding down the Option when opening the program to get a zoom view. The Option + Shift key moves down even closer to ground level. Holding down the mouse button while creating a city will list its name.

Holding down the Option key while clicking on the Find button scrolls through the cities alphabetically. Try finding the place 'Middle' for a cute surprise.

Clicking on the words 'Time Zone' will change to 'Time Difference'. Map will show you the difference in hours, and the actual time there. You can use the 'Set' command to fool your Macintosh into believing it's in another time zone.

There was quite a stink on the Internet about what municipalities were left off the Map list. Fortunately, any city can be added to the program. Edinburgh, Cardiff, London, and Dublin are found in the US version.

David Morgenstern

# Studio Software

The BEST choice for all your computer needs.  
20 Oldfield Circus, Off Whitton Avenue  
West, Northolt, Middlesex.

Telephone 081 423 8733

Opening times: Mon-Sat 9.15am - 5.00pm (orders and enquiries)  
7.00pm-8.30pm (orders only)

THESE ARE JUST A FEW OF THE MANY  
GAMES THAT WE HAVE ON OFFER FOR  
ALL THE CONSOLES AVAILABLE

## SUMMER SIZZLERS AUGUST/SEPTEMBER 1991

Sega Megadrive	Price	£35.00
	(Scott)	£35.00
Japanese adaptor (allows Jap games onto UK machine)		£10.00
Sega Arcade stick		£30.00
Sega JoyPad		£14.00

### TOP 11 GAMES FOR MEGADRIVE

Mickey Mouse	£20.00	Driver	£25.00
Almighty Resistance	£16.00	Super Mario GP	£34.00
Bonanza Bros	£34.00	John Madden American Football	£36.00
Sander	£20.00	PGA Golf	£37.00
Super Renegade	£34.00	Sonic The Hedgehog	£35.00
Cyrosaur	£33.00		
Sega Game Gear (comes with two free games)			£80.00
All Sega Game Gear Games			£22.00

### NINTENDO

Nintendo Gameboy	£45.00
Lightbulb (play-on-light)	£19.00
Hard Carrying Case (comes Gameboy & 4 game carts)	£14.00

### TOP GAMEBOY GAMES

WWF Wrestling	£24.00	Geriatric 2	£22.00
Hunt for Red October		Super Mario	
All American Gameboy carts			
All Japanese Gameboy carts			

## ★ EXCLUSIVE ★

We are now taking orders for the SEGA CD-ROM machine at a cool price of £300. Please note that ordering will take up to 3 weeks! SEND NO MONEY NOW - CALL FOR DETAILS.

## ALSO

Buy either a Megadrive or Famicom and you will be entered into our mad price give-away.

Prize money of £500 snappers given away each month.  
£1000 every six months (combination of the past 6 months)  
AND FINALLY FOR A CHRISTMAS CRACKER PAYOUT... £5000  
If you like being given money then buy one of these  
MEAN MACHINES.

STOP PRESS. STOP PRESS. STOP PRESS. STOP PRESS. STOP PRESS  
Any consoles bought between now and September will be sold at half of the original price.

## HOW TO ENTER COMPETITION

All you have to do is buy your machine from Studio Software; your details will be entered automatically.  
All winners will be notified after the competition.

Remember if you're not in you can't win.

\* Access and Visa welcome.

All cheques made payable to:

**STUDIO SOFTWARE COMPUTING**

All goods despatched within 3 working days.

# ATARI PRINTERS AMIGA

## ST Accessories

SM24 Mono Monitor	£259.00
External 3.5" Disk Drive	£99.00
Golden Image Head Scanner	£399.00
Force-Able Switch II	£19.95
ST Monitor Switch Box	£14.95
STE Stereo start lead	£2.99
STC Stereo M9 6833 lead	£2.99
STFM M9 6833 lead	£2.99
JoyStick/Mouse extension lead	£4.99
Replacement Mouse lead	£3.95
Standard Parallel lead	£5.95
Mouse Mat	£3.50
Squid replacement mouse	£14.99

## Protar Hard Drives

We are now official stockists of the latest in high quality / low price ST hard disk drives from Protar. All Protar hard disk drives come with a full 12 month REPLACEMENT warranty, no lengthy repair! A DMA through port, device number switching and superb disk management software.

### \* NEW LOW PRICES \*

#### \* STE COMPATIBLE \*

Protar 20Mb Hard Disk	£279.00
Protar 40Mb Hard Disk	£349.00
Protar 40Mb with Cache	£429.00
Protar 44Mb Removable	£399.00
Protar 60Mb Hard Disk	£437.00
Protar 60Mb Tape Streamer	£589.00
Protar 80Mb Hard Disk	£469.00
Protar 80Mb with Cache	£506.00
Protar 150Mb Tape Streamer	£763.00
Protar 160Mb Hard Disk	£592.00
Protar 400Mb with Cache	£959.00

## STE Ram Kits

01Y 1 - 512k upgrade	£29.99
01Y 2 - 2mb upgrade	£89.00
01Y 4 - 4mb upgrade	£169.00

All STE Ram Kits come with instructions and DOES NOT require soldering in most machines.

## 8833 Colour Monitor

The Philips 8833 M81 is the perfect colour monitor for ST and Amiga owners. With its stereo sound and super quality picture it really shows off the full capabilities of the STE and the Amiga. The Philips 8833 M81 also comes with 12 months on site warranty FREE.

8833 with STFM cable	£249.99
8833 with STE cable	£249.00
8833 with Amiga cable	£249.99

### Or even better ....

The new VISTO colour monitor. The VISTO C14M, made under official UK licence from Philips themselves, is identical in every respect to the Philips 8833 M81 including all inputs and outputs. But VISTO have enhanced the looks of the monitor by replacing the case with a new upgraded better looking version. The VISTO C14M has a no quibble 12 month replacement warranty and comes free with cables for all Amigas and all Atari STs.

VISTO C14M £248.00

## ACCESSORIES & RIBBONS

All of our printers come with a parallel cable to suit Atari ST, Amiga and all standard PC etc. (other cables available at extra cost - ask for details). All printers carry a full 12 months warranty. We only sell genuine UK stock - we do not offer inferior 'grey imports'.

## CITIZEN

**\* 2 YEAR WARRANTY \***  
**EXTENDED SPECIAL OFFER!** Due to the massive response to our FREE colour kit offer we have decided to extend the offer so all Citizen Swift 824 and 24X printers will continue to come with a FREE colour kit and colour ribbon until stocks last.

**SPECIAL OFFER!** For a limited period only we are offering a CITIZEN PRINTER STARTER PACK with all Citizen printers. The pack comprises of: 3.5" disk full of printer drivers for the ST/Amiga & PC, 200 sheets of folded tractor feed paper, 200 folded tractor feed address labels, 5 tractor feed envelopes all for only £29.99 on top of the price of the printer

Citizen 500D - 8-pin, 144 cps draft, 30 cps NLQ	£399.00
* Citizen Swift 919-pin, 382 cps draft, 48 cps NLQ	£399.00
Citizen 624D 624-pin, 144 cps draft, 48 cps LQI	£299.00
* Citizen Swift 24X 624-pin, 382 cps draft, 64 cps LQI	£399.00
* Citizen Swift 24X 624-pin, 15" carriage	£399.00

\* Denotes FREE COLOUR UPGRADE KIT

## star

Star LCD Mono 69-pin, 144 cps draft, 24 cps NLQ	£195.00
Star LCD200 Colour 69-pin, 144 cps draft, 45 cps NLQ	£290.00
Star LCD24-10 Mono 624-pin, 382 cps draft, 60 cps LQI	£276.00
Star LCD24-200 Mono 624-pin, 382 cps draft, 67 cps LQI	£290.00
Star LCD24-200 Colour 624-pin, 382 cps draft, 67 cps LQI	£296.00
Star X264-10 Mono 624-pin Professional Series	£476.00
Star X264-15 Mono 624-pin 15" version of X264-10	£600.00

## Other Printers

Canon BJ16C Durable Jet Ink jet (not portable and compact) £399.00  
Viewpoint Desktop Jetset 500 Ink jet, 3 pages per minute! £599.00  
Pantonic KOP 1624 624-pin, improved version of KOP 1624 £279.00

PHONE OR VISIT US TODAY FOR THE BEST PRICES FOR PRINTER RIBBONS AND ACCESSORIES ETC.

LASER PRINTERS & PLOTTERS AVAILABLE ON REQUEST - PLEASE BRING US YOUR REQUIREMENTS

## ATARI LYNX

The Atari Lynx is a superb, full colour hand held, games console using plug-in cartridge games. The Lynx can be used with either batteries or a mains power supply unit. All our Lynx machines come with instructions and are available with or without mains power supply unit and comlynx cable.

Lynx Console Only	£79.99
Lynx + PSU	£94.99
Lynx + PSU + Carlynx	£99.99
Carrying Case	£14.99
Carrying Pouch	£13.99
Car Power Adapter	£9.50
San Viscoramic Shield	£9.99
Main Power Supply	£9.99
Comlynx Cable	£7.99

### GAME CARDS

Blue Lightning	£19.99
Crash Challenge	£19.99
Electrotop	£19.99
Galaxy of Zombos	£19.99
Guardian 3	£19.99
Killa	£19.99
Miss Pacman	£19.99
Nampong	£19.99
Rock Busters	£19.99
Robo Squash	£19.99
Rygar	£19.99
Shanghai	£19.99
Star World	£19.99
Xenophobe	£19.99
Zaxxon	£19.99
War Birds	£29.99
Paperboy	£29.99
California Games	£29.99
Book Out	£29.99
Ultimate Chess	£27.99

## Accessories

Protar 512K ram upgrade + clock	£29.99
AS01 512K ram upgrade + clock	£39.99
AS00 150Mb ram upgrade	£29.99
AS00 500Mb hard disk drive	£294.95
External 3.5" Disk Drive	£95.00
Squid replacement mouse	£14.99
Golden Image Head Scanner	£399.00
Amiga Stereo Sport Lead	£2.99
Amiga 8833 M81 Lead	£2.99
Mouse Mat	£3.50

## 512K Ram Upgrade with Clock

We are now stocking the new PROTAR 512K RAM UPGRADE WITH CLOCK. The neat, compact 4 chip design comes complete with full instructions, on/off switch and a full 12 month warranty.

PROTAR 512K Ram with clock £29.99

We also have limited stocks of the genuine Commodore AS01 512K Ram Expansion, which we are offering at the ultra low price of £1.

AS01 512K Ram with clock £39.99

Please specify which 512K ram upgrade (either Protar or Commodore) when ordering from us.

## NEW Protar Amiga Hard Drives

At last... high quality hard disk drives for the Amiga. The new PROTAR range of Amiga hard disks are here... and just look at the specifications...

- \* Perfect fitting to the A500
- \* Colour matched to the A500
- \* 5 times faster than the A590
- \* SMD internal ram expansion facility
- \* 1 year REPLACEMENT warranty
- \* 2 year warranty of Cache versions
- \* Auto parking & auto booting
- \* Separate PSU supplied
- \* Sub 24 millisecond access time
- \* Hard disk management software

Protar 20Mb Hard Disk	£279.00
Protar 30Mb Hard Disk	£349.00
Protar 50Mb Hard Disk	£429.00
Protar 50Mb with Cache	£529.00
Protar 60Mb Hard Disk	£542.00
Protar 80Mb Hard Disk	£599.00
Protar 100Mb with Cache	£639.00
Protar 160Mb with Cache	£939.00

## BEST PRICES

MAIL ORDER HOTLINE  
(0903) 700714

10AM to 12MIDNIGHT  
7 DAYS A WEEK

# ATARI STE PACKS

ALL ATARI STE PRICES INCLUDE VAT AND UK DELIVERY. ALL PRODUCTS CARRY A FULL 12 MONTH WARRANTY. PLEASE RING US BEFORE ORDERING TO CHECK STOCKS AND CURRENT PRICES.

**ATARI STE STANDARD PACK.** consists of the computer with mouse, tv lead, manual and all connecting leads etc. The Standard Pack is supplied with NO software.

**ATARI STE DISCOVERY 1.** consists of the Standard Pack and STOS, First Basic, NeoChrome and 4 games (Carrier Command, Space Hunter, Outrun, Bomb Jack)

**ATARI STE DISCOVERY 2.** consists of the Standard Pack and First Basic, ST Tour, NeoChrome and 4 games (Dragons Breath, Super Cycle, Indiana Jones, Asteroid)

**ATARI STE TURBO.** consists of Standard Pack and STOS, Hyperpaint II, Music Maker I, First Basic and 6 games (Indiana Jones, Dragons Breath, Blood Money, Impossible Mission II, HSM, Anarchy, Outrun and Supercycle)

**ATARI STE TENSTAR.** consists of Standard Pack and Asterix, Chess Player 2150, Driven Force, Live + Let Die, Outslight, Pipemania, Rick Dangerous, Rock a Roll, Shock and Thrill Pursuit II

**ATARI STE POWER.** consists of Standard Pack and also 20 top selling arcade games. Due to lack of space, it is not possible to list the games. Please phone for details.

**ATARI STE KUMA BUSINESS.** consists of Standard Pack and word processor K-Word 2 find, K-Spell Check, K-Databases, K-Spreadsheet, K-Graph business graphics and Metacomco Basic language.

**ATARI STE CURRICULUM.** consists of Standard Pack and 3 levels of educational software from 5 yrs to 90 yrs (a word processor, database, spreadsheet, Hyper Paint II and Music Maker I.

512k	1mb	2mb	4mb
£289.00	£319.00	£349.00	£429.00
£299.00	£329.00	£359.00	£439.00
£299.00	£329.00	£359.00	£439.00
£309.00	£339.00	£369.00	£449.00
£309.00	£339.00	£369.00	£449.00
£309.00	£339.00	£369.00	£449.00
£319.00	£349.00	£379.00	£459.00
Not Available	£369.00	£399.00	£479.00

# AMIGA PACKS

ALL AMIGA PRICES INCLUDE VAT AND UK DELIVERY. ALL PRODUCTS ARE UK STOCK AND CARRY A FULL 12 MONTH COMPRESSOR WARRANTY. PLEASE RING US BEFORE ORDERING TO CHECK STOCKS AND CURRENT PRICES.

**AMIGA A500 BASE** A500 computer, mouse, tv modulator, manuals, Workbench, etc supplied 'bare' with no games software \* STOCKS VERY LIMITED - SO HURRY \*

£299.00

**AMIGA A500 BASE 1MB** A500 computer with extra 512K ram expansion, mouse, tv modulator, manuals, Workbench, etc supplied 'bare' with no games software. \* OUR RAM EXPANSIONS DO NOT INVALIDATE YOUR WARRANTY \*

£325.00

**AMIGA A500 ASTRA** A500 512K computer, mouse, tv modulator, manuals, Workbench, etc supplied with 10 great software titles (see A500 1MB ASTRA pack below for details)

£325.00

**AMIGA A500 1MB ASTRA** Amiga A500 computer, 512K Ram expansion with clock and battery back-up, mouse, tv modulator, manuals, Workbench etc disks, plus the ASTRA 10 games pack including the following games : Databases, Dungeon Quest, E Motion, Grand Monster Stern, Kid Gloves, Powerplay, RWF Honda, Shuffle Puck Cafe, Soccer and Tower of Babel

£350.00

**NEW! AMIGA A500 1MB CARTOON CLASSICS** Amiga A500 computer, 512K Ram expansion with clock and battery back-up, mouse, tv modulator, manuals, Workbench etc disks, plus the following top selling software titles : Lemmings, The Simpsons, Captain Planet and Deluxe Paint 3

£359.00

**AMIGA A1500 BASE** A1500 computer with 1MB ram, detachable keyboard, 2 x 3.5" 800K disk drives built in, mouse and all manuals. Accepts all A2000 peripherals etc. The A1500 base pack is supplied with no software other than Workbench. Please note : the A1500 does not have a modulator.

£599.00

**AMIGA A1500 SOFTWARE** consists of the A1500 Base Pack and the following great software (Platinum Works, D Paint 3, Populous, Simm City, Battle Chess, Their Finest Hour (Battle of Britain) and 2 books - A-Z of Computer Jargon and Getting the most from your Amiga.

£655.00

## PLEASE NOTE - ALL OF OUR PRICES INCLUDE VAT AND DELIVERY !!

IF YOU WISH TO ORDER WITH US, THEN PLEASE SEND YOUR CHECKS, BANKERS DRAFTS, POSTAL ORDERS, CASH ETC TO OUR MAIL ORDER ADDRESS OR RING OUR MAIL ORDER HOTLINE ANY TIME BETWEEN 10.00AM AND 12 MIDNIGHT, 7 DAYS A WEEK, AND USE YOUR ACCESS OR VISA CARDS OR ALTERNATIVELY PAY A VISIT TO OUR SHOP, CHIPS COMPUTER CENTRE, AND SEE OUR WIDE RANGE OF COMPUTER GOODS AND SOFTWARE.

### SHOWROOM

CHIPS COMPUTER CENTRE, 53 RUGBY ROAD,  
WORTHING, WEST SUSSEX BN11 5NB.

TEL : (0903) 700904.

OPENING : MON TO FRI 10AM TO 6PM, SAT 9.30AM TO 5.30PM

FINANCE / CREDIT REQUIRED

BAR EXCHANGE CONSIDERED - NEW AND USED EQUIPMENT

AMAZING 10% AMIGA AND PC COMBOS ON DISPLAY

ALL TYPES OF SOFTWARE (BUSINESS / LEISURE)

REPAIRS UNDERSTOOD, TRAINING, INSTALLATION, ON-SITE WARRANTIES.



### MAIL ORDER

BEST PRICES (DEPT NCE), 53 RUGBY ROAD,  
WORTHING, WEST SUSSEX BN11 5NB.

TEL : (0903) 700713.

OPENING : 7 DAYS A WEEK, 10AM TO 12 MIDNIGHT

ALL PRICES INCLUDE 12.5% VAT AND FREE DELIVERY (AMAZING 4 - 5 DAYS)

PLEASE ADD £7.00 FOR NEXT WEEKEND DELIVERY

GOODS USUALLY SENT OUT THE SAME DAY WHEN

CLARIFIED PAYMENT IS RECEIVED BEFORE 2PM

PERSONAL CHECKS REQUIRE 7 DAY CANCELLATION

All prices include 0.5% VAT and free UK delivery unless stated otherwise. All prices / specifications / special offers subject to change without notice.

BEST PRICES MAIL ORDER - OUR TELESales LINES ARE OPEN FROM 10.00AM TILL 12 MIDNIGHT - 7 DAYS A WEEK !!!

# WHOLE WIRED WORLD



Off the wire this week, Steve Gold reports on the long awaited Atari control panel, Aussies who think CDTV is fair dinkum, an adaptor to link your PC to your ST, and promising new add-ons for the video toaster

## ISRAEL LOSES ATARI CONTRACT

It looks like Atari has put the stoppers on plans to build a \$63 million computer manufacturing facility in Israel. According to a fax sent from Atari to Zvi Koren, the head of Israel's Trade and Industry Ministry, Atari has zipped the project, blaming Israel's foot-dragging.

In the fax, Atari claims that it told the Trade and Industry Ministry on 28 June that it needed a reply no later than 21 July. Since the reply never arrived, Atari said it was withdrawing the proposal.

For their part, Israeli ministry officials claim that Atari's formal request for the investment arrived on 18 July, and that a ministry commission had intended to meet in late July. They expressed hope that Atari would reverse its decision. All the signs, however, point to the project being cancelled.

This leaves Atari with only limited production of its machines, with the bulk of manufacturing contracted out to third-party companies. Contracting out is a financially efficient method of production - Amstrad contracted out in its early days of PC production - but it does mean that a company is at the mercy of the contractor. If sales skyrocket, arranging for extra machines to meet demand can prove tricky.

## CONTROL PANEL FOR ST AND TT

After several months of rumours and promises, Atari has finally released its new control panel for the ST and TT machines to the public in the US. First reports suggest that the new graphics front-end for the ST/TT series is well worth the wait.

When the rumours about the new control panel started late last year, many in the industry thought that it would only work with the TTs and Mega STs, but according to an Atari representative, "it will work on all ST, Mega, STe, STE, Mega STE and TT systems".

Basically, the principle seems to be, if it's TOS driven, the computer will run the new control panel. So what is the new control panel? Derived from where you first heard about it, the new control panel comes under several names - the new control panel, X-control, and the extended control panel. Despite these working names, its official title, in Atari circles at least, is the 'extendable control panel' or ECP for short.

The ECP is a replacement for the old control panel seen on the ST. Like the first control panel, the ECP allows users to configure the ST's systems - double-click rate, key repeat rate,

## AMIGA HAILED A SUCCESS 'DOWN UNDER'

The Commodore Amiga continues to gain the edge on the Atari ST. Reports just in from Australia, suggest that the World of Amiga show, held in Sydney in late July, was a great success, with almost 30,000 paying bodies walking through the doors.

In contrast, the last New York World of Amiga show only had 10,000 visitors. One reason for the record turn-out by the Aussies may have been the fact that this show marked the debut of the CDTV system in Australia.

Talking of which, what is happening with the CDTV? Clashing with Paul Fletcher of the European Multimedia Centre in London (071-267 2233) recently, I discovered that Commodore UK is working quietly on the CDTV, with a major push planned this Autumn.

The EMC is involved, since it dedicated to promoting multimedia computing, a category which the Amiga CDTV falls neatly into. Watch this space.



\* Interest in the CDTV may explain the success of the World of Amiga show in Sydney, Australia, which attracted some 30,000 people. Meanwhile, back in Pommernland, a major push for the CDTV is expected this Autumn

colours, printers, modems, etc.

What makes the ECP different, says Atari US, is that it loads in individual CPX program modules as it needs them. This cuts down on the amount of memory required for each different function.

This enables users to customise the ECP for their own use. Several versions of the ECP can be placed on disk, for use in different situations. For instance, where RAM is tight, a bare bones ECP can be loaded. When running a simple program, the full ECP suite of software - essentially a Borland Sidekick range on the ST - can be loaded.

So when will we see the ECP in the UK? Sources suggest later this year. In the meantime, take an extra stroll

around your favourite on-line system or BBS. If the system has an Atari area, chances are that you'll be able to download the new ECP from it.

## Z-KEYS ADAPTOR FOR PC

Zubir Interfaces has announced an adaptor for the ST - it's called Z-keys and enables almost any PC keyboard to be used with almost any Atari ST.

The \$29.95 adaptor is said to be relatively easy to fit, and plugs in under the 520 or 1040 ST's existing keyboard, leaving a trailing keyboard adaptor port. The PC keyboard can then be plugged in as usual. If you have a Mega ST or STE, a further extension cable is needed - this adds \$20 to the list price.

While it's far to say that the US marketplace has a number of keyboard kits for the ST, this is the first one that I've come across that allows your own choice of PC keyboard to be used. So when's a version coming out for the Commodore Amiga then? Soon, the company says. Contact: Zubir Interfaces Inc., 52438 Parnamont Boulevard, Lakewood, CA 90712. United States. Tel: 0101-213-409-6715

## ATARI PORTFOLIO FORUM DEBUT

At long last, the Atari Portfolio has its own area on the Compuserve on-line information service. The area, which opened at the end of July, is called the Paintport Forum, and includes interactive messaging and a growing number of program files for the increasingly popular Atari pocket-book PC.

The main topic at the time of writing seems to be how to maximise data storage on the Portfolio. Several programs available for download help users make the most of the RAM, and RAM cards they have. If you have a modem, the Compuserve Paintport Forum is well worth checking out.

Further details of Compuserve on 0000 289458 (voice).

## TOASTER OF THE TOWN

Nowtek, the developers of the Video Toaster for the Amiga, has previewed version 2.0 of the driver software for the add-on graphics unit. First reports suggest that the software greatly enhances the capabilities of the unit.

Nowtek's Video Toaster is actually a video controller board for the Amiga that allows the computer to simulate professional quality video effects. With version 2.0 of its software, Nowtek has added several new transitional effects to its swiftness, including animated effects such as smoke and clouds.

Nowtek is shipping the Video Toaster workstation in two versions - version 1.0, at \$3,995, comes with an Amiga 2000 equipped with 5Mb of RAM and a 50Mb hard drive. Version 2.0, meanwhile, costs \$8,995, and comes with an Amiga fitted with a 50MHz 68030 microprocessor and maths co-processor, along with 9Mb of RAM and a 195Mb hard drive.

Contact: Nowtek, 215 SE Eighth Street, Tappan, NJ 07663, United States. Tel: 0101-913-354-1146 ■



• Atari's new control panel (ECP) works with both the TT (above) and the STE



## PROGRAMMING

## FULLY EQUIPPED

Mary Branscombe reports on CASE tools for single users, cut price utilities, GFA-BASIC for Windows, and protecting your programs from nosy users

**C**ASE tools (that's Computer Aided Software Engineering) can make programming a whole lot easier, but most CASE tools are designed for groups of programmers working on a network of workstations - and they're usually very expensive to boot, often costing £6,000 and upwards.

Personal-Select/SSAOM from Select Software is considerably cheaper than that, although it's still quite pricey at £495. It's a single-user CASE tool for the PC, because not everyone writes their programs in a group.

Personal-Select/SSAOM supports version 3 (as well as the newly agreed version 4) of SSAOM - the Structured Software Analysis and Design Methodology which is used in government defence projects.

It clones the design for your program and uses techniques from knowledge-based systems to check that the code you write later actually matches up with your original design for the program. Contact Select Software on 0242 225553.

### LOW COST HISOFT

HISOft is reducing the prices of current versions of DevpacST 2, BASIC version 1 and the Harlekin utilities, all for the Atari ST and STE, to £39.95 each, in order to clear stocks before they release new versions of the products.

The Devpac 85000 assembler/disassembler is reduced from £59.95. Version 3 of Devpac is due for release in September this year, with a new editor, an improved debugger and a faster

assembler with more switches. It will cost £39.95 and upgrades will be £34.95.

BASIC Version 2 should be out soon for £29.95, with a multi-window editor, a debugger and a high-level GEM toolkit.

A new version of HighSpeed Pascal follows hot on the heels of the original release. Version 1.13 of the compiler includes an in-line 68000 assembler for incorporating assembly language and support for a 68881 maths co-processor. Details from HISOft on 0525 718181.

### DOWN TO BASICS

Another version of BASIC for developing Windows applications - GFA-BASIC Windows includes everything you need to write Windows applications so you won't need the Microsoft Software Developers Kit. You can access over 500 Windows System calls and use the Clipboard, Dynamic Data Exchange between Windows applications and Dynamic Link Libraries that make code available to different programs.

GFA-BASIC Windows is syntax compatible with GFA-BASIC for MS-DOS, Amiga and ST and it costs £200. Talk to GFA on 0734 794941.

### PROTECT YOUR CODE

If you don't want other users to copy your programs or if you want to put out an evaluation version that can only be used a few times, you need Everkey II. The Everkey II plugs into the parallel port on a PC and protects any EXE or COM file. Your original code can't be disassembled either.

Get your programs protected by contacting User Friendly Microsystems on 0527 510105.

## NOW WE ARE SIX

Microsoft has completely rewritten version 6 of its Macro Assembler to the point where the assembler can now break the linker directly, so your source files go straight into relocatable files. The old full-screen editor has been replaced by the Programmer's Workbench, an integrated environment for editing, assembling, debugging and linking that's becoming standard on Microsoft platforms.

To help you look through your files, there's a source browser, and the Advisor on-line help system is very welcome - no more leafing through enormous manuals and you can even add your own help screens to the system.

The assembler still has two new data types, Union and Typed, for declaring your own types. The high level commands like REPEAT and UNTIL are now connected directly into tests on registers and the associated jump labels, which is one of the features that makes the assembler so much faster than before. The pass method of assembly also speeds things up.

C programmers who use some assembler - and vice versa - will like NASM 6 because the H2NC program included converts C header files to assembler include files, so you can use just one header and convert to the relevant format. That's one less tedious job to do yourself.

The new INVOKE command makes it easier to call external procedures, written in any high level language, making sure that the order of parameters on the stack is correct for that language.

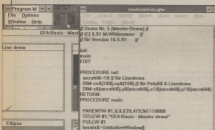
As well as making your code faster, NASM 6 makes it more compact. All the initialisation required for a DOS startup sequence is in the STARTUP command, which cuts out a good deal of code and there's a corresponding .EXT command as well.

NASM 6 costs £195 from Microsoft on 0734 391123.

## OVER TO YOU

Are you using Assembler? ST, PC or C48 - whatever your machine, we want to hear from you, so write to:

Mary Branscombe,  
Future Publishing,  
New Computer Express,  
30 Bloomsbury Street,  
Bath,  
Avon BA1 2BH



• GFA-BASIC for Windows has powerful graphics functions and dispenses with the need for the Microsoft Software Developers Kit. It also gives you access to over 500 Windows System calls

## ALL ABOUT AMIGA GRAPHICS

Amiga Programmer's Handbook • Eugene P Mortimer • ISBN 0-09585-367-4 • Pitman • £24.95

This is a reference manual covering the Amiga ROM kernel facilities for graphics and animation. Just opening the front cover gives you a good idea of its no-nonsense approach. Instead of credits or adverts for other books by the author, the first and last two pages in the book are crisscrossed with an index to a selection of the functions and macros covered in the book, complete with parameters and subroutines to mark which are macros and which return a value.

This is a reference book rather than a programming guide and you could use it with any compiled Amiga language from assembly language or C to Pascal. Because it's not language specific, there is very little code in the book. It's functional rather than illustrative, giving you programming templates for all the Amiga's video display modes. If you want more code, four C programs are available on a separate disc.

Each entry covers one of the functions in the five libraries

• Amiga Programmer's Handbook • everything you need to know about Amiga graphics from gadgets to virtual sprites



that control Amiga graphics - the Exec library, the Layers library, the Intuition library, the Icon library and, of course, the Graphics library itself.

As well as giving you the structure and explaining the syntax, there's a full discussion of how each function works and what you can do with it. If you want to use the Amiga's graphics capabilities, the Amiga Programmer's Handbook shows you everything that's on offer.

# NEW AGE COMPUTING

## AMIGA DEALS

Where stated our exclusive New Age pack contains, on top of the standard packs:

- \* A free mouse mat
- \* A disk head cleaning kit
- \* 15 professionally packed Public Domain disks
- \* A complimentary issue of Computer LYNX magazine, giving you that extra insight in the new world of AMIGA computing!

BASE A500 512K + New Age Pack	£319.95
BASE A500 512K BARE	£309.95
BASE A500 1 Meg + New Age Pack	£344.95
BASE A500 1 Meg BARE	£334.95
A500 1 Meg Screen Gems + Pack	£365.00
A500 1 Meg Screen Gems	£355.00
A500 1 Meg Cartoon Classics + Pack	£375.00
A1500 BASE Machine + New Age Pack	£575.00
A1500 10845 Stereo Monitor + Pack	£319.95

## HARD DRIVE OPTIONS

### A1500/2000

GVP or XETEC SCSI HD controller with 8 meg RAM upgrade option on board. NEXUS cards out now - add just £20 to total!

Card (9K) - please state GVP/Xetec	£199.99
Card + 50 Meg hard drive	£429.95
Card + 105 Meg hard drive	£581.95
Card + 170 Meg hard drive	£787.95

2 Megabyte RAM (only with drive)	£79.00
4 Megabyte RAM (only with drive)	£157.00
8 Megabyte RAM (only with drive)	£314.00

### A500

Commodore A500 controller and 2 meg ram upgrade option on board

A500 + 20 Meg drive (standard)	£285.95
A500 + 52 Meg Hard drive	£489.95
A500 + 105 Meg Hard drive	£545.95
A500 + 170 Meg Hard drive	£805.95

2 Megabyte RAM (only with drive)	£70.00
----------------------------------	--------

All drives and/or RAM fitted by us ready for you to just plug in and go!  
If you need more storage, call for a quote.

## MISCELLANEOUS

Nakiska Mouse + Operation Stealth (289dpi)	£23.00
Vinyl mouse mats	£1.99
Foam mouse mats	£2.99
Turbo 68000 replacement chip (7114MHz)	£39.00
NB: Chip requires Revision 5.2 Amiga or above	
Thing II A4 carry holder	£3.99
Fastback II disk holders	£1.99
Plastic Library Cases (15 disks)	£0.99
Universal Printer Stands	£8.99
3.5" disk head cleaning kit	£1.99
Mountain Breeze computer air ioniser	£25.00

## SOUND ENHANCER

**NEW!**

Probably the most revolutionary development on the AMIGA this year!

If you thought the Amiga had good sound...  
"you ain't heard nothin' yet!"

High quality filtering techniques produce good sound even from the worst samples!

Requires no external power. Full on/off facility and controllable filtering.

You've SEEN the reviews, now HEAR for yourself

Sound Enhancer + free music disk...£34.95

## 3.5" BULK DISKS

High quality branded bulk disks  
With full replacement guarantee

25 disks with labels	£16.00
50 disks with labels	£28.00
100 disks with labels	£42.00
200 disks with labels	£74.00
500 disks with labels	£162.00
High density disks (each) minimum 50	£0.25

**\*\* Order 500 disks and get 25 extra free \*\***

Roll of 1000 labels	£5.95
---------------------	-------

## 3.5" DISK STORAGE

40 Capacity Lockable Box	£4.50
60 Capacity Lockable Box	£5.00
POSSO 150 capacity drawer (stackable)	£16.00
BANK 90 capacity drawer (stackable)	£8.00

**\* Order any 5 boxes and get 20 disks FREE \***

## DISK DRIVES

All drives with free issue of Computer LYNX

External Slim 3.5" Drive - Throughport/Switch	£58.00
Internal A500 replacement drive	£59.95
Internal 1500/2000 2nd drive/replacement	£65.00

## A500 0.5 MEG MEMORY UPGRADE

Expansions without a clock are just a waste of time!

FREE ONE MEG DEMO!

"ENIGMA" by Phenomena

A500 Memory Upgrade with clock + disk...£26.00

## DUST COVERS

Amiga 500	£4.99
Star LC-10	£5.50
Monitor (Philips or other 14")	£6.50

## PROFESSIONAL PUBLIC DOMAIN

As featured in NEW COMPUTER EXPRESS! These are more than just standard disks, they come with proper cases and inlay/documentation. FULL LIST OF TITLES IN OUR FREE CATALOGUE

1 disk:	
Noiseplayer 4 with documentation	£1.50
Ice megademo	£1.50
Pooled Pleasures (Turkmen 8 remix)	£1.50
Silence of the Demos (various demos)	£1.50
Mystical Tunes (Classic CHIP music)	£1.50
Substance! - Quarter's first demo!	£1.50
2 disk:	
Blues House - Thrust game & music	£2.50
Virtual World/Alfa Omega Twin Pack	£2.50

## JOYSTICKS

Zipstick + Autofire	£12.50
Competition Pro 5000	£10.50
Speed King + Autofire	£10.95
Navigator + Autofire	£13.95
Python 1 + Autofire	£9.95
Maverick 1 Autofire	£13.95
Powerplay Cruiser	£9.95

Phone for details/prices on other joysticks

## PRINTER RIBBONS

Star LC-10	£3.00
Star LC24-10/24-250	£4.50
Amstrad 3512	£2.75
Amstrad DPMP 2000/3000	£3.50
Amstrad DMP 4000	£4.00
Epson MX100	£3.50
Epson LX80-96	£3.00
Epson MX 100	£3.50
Epson LX 1000	£3.75
Epson LX 850	£3.00
Panasonic KRP 1124	£4.75
Panasonic KRP 1080/1081/1180	£4.50

**\* Call for your printer now!**

## COMPUTER LYNX MAGAZINE

Our exclusive action packed magazine ON A DISK! Demos, news, interviews, reviews and much more! WE CAN'T EXPLAIN IT ALL HERE. SEND FOR A TASTER!

Computer LYNX (latest issue)	£1.50
14 issue subscription - including P&P	£22.00

## SOFTWARE

We can supply nearly all available software

We can virtually always get software not in stock within 24 hours if ordered before 3pm.

We will also match prices with our competitors and in most cases BEAT those quoted by others!  
So if you want the best price you MUST call.



Cheque's/Postal orders payable to "NEW AGE COMPUTING". All prices include V.A.T.

POSTAGE & PACKING. Please add 50p for orders under £1.50, £1.50 orders up to £10, £2 orders above £10. Also add £5 on orders over £150 Insurance

**PRICE MATCH!**

If you see any item elsewhere cheaper, we'll try to BEAT the price!

New Age Computing, Dept NCE, 187 Perrysfield Road, Cheshunt, Herts, EN8 0TL  
Telephone (0992) 465366 / (0831) 820097. Fax: (0992) 450009

# TECH TIPS

Keith Pomfret says Kindwords can work; ties a printer ribbon round an old Juki; links up with a computer downrider and tackles a Demon modem

## HELP Partition bugs

Could you help me with a wee problem or two? Problem one is that I am an Amiga user running an AS50 hard disk and a KCS PC Power Board. The hard disk is partitioned 10Mb AmigaDOS and 10Mb MS-DOS. The problem is that when I run Kindwords 2.0 be it from disk or hard disk the Amiga returns the error: 'Unit 6 is not a DOS disk'. Is this curable?

Also, is it possible to slow an Amiga down to 50 baud so that it could accept Marmy Code from a Teleprinter? I bet you've never been asked that question before.

Joe Watkins, Sutton

**WHAT KNOWWORDS** is doing is acknowledging that the IBM partition on the AS50 is there and that it is not AmigaDOS compatible. You don't mention whether Kindwords fails to work after the error message comes up, so it just seems to be an inconvenience more than anything else.

As far as fiddling it goes, try looking in the KCS manual to see if there is a mounting command that can be put in the startup-sequence to make the Amiga recognise the PC partition.

As for the second question, it is indeed possible to slow the Amiga down to 50 baud. Because you are reading data from the teleprinter I presume you would be looking the Amiga up to it through the serial port.

The Amiga serial port can read data at speeds as slow as 50 baud. A communications program could be used for the job, but 50 baud might be a bit too slow for their settings.

A better bet might be to contact an amateur radio club that uses computers. One such club is the Commodore Radio Users Group, 68 Irvine Drive, North Clippens, Linwood, Paisley. It might be

able to help get the Amiga to understand the Murray Code as well.

## HELP Non-DOS message

I have an Amstrad PC2386 with a 650Mb hard drive. Although the computer is perfectly alright and the hard drive doesn't seem to have any problems, when I CHKDSK on the hard drive it comes up with: 'Probable Non-DOS Disk. Continue Y/N?'

If I press 'Y' it works perfectly and checks the disk, but it didn't use to do it. It has only started recently and I am concerned there is a problem with my hard disk and I wish to resolve it before something goes seriously wrong.

D Glover, Farnham

FIRSTLY, it might be a good idea to check if your hard disk is partitioned into C: and D: drives. If the message comes up on both partitions then there could be something physically wrong with the drive and it would be worth having it checked out by a technician.

If it only comes up on one partition or there is only a C: drive then there could be some corruption on part of the drive. The fact that the command now checks the disk whereas it didn't before may mean that it has cleaned up the disk itself. Keep an eye on what it does though.

Just for safety it might be worth checking the disk for viruses, as this is the sort of thing they might do. This isn't just scaremongering as there is a possibility the drive could have been infected by a rogue disk. Anyway, it's always a good idea to check both floppy and hard disks for viruses on a regular basis. Virus checkers are available from most Public Domain libraries.

## HELP Torch lighted

I am a student doing a City & Guilds 425 Level 3 Certificate in Applications Programming in Cobol with Kalamazoo.

I have just recently bought a Torch Graduate (remember that?) model 48002 for my BBC. Basically it's an 8086, 256K RAM, 2 x 386 3.25-inch Epsom drives, integral PSU and two 6-bit IBM slots. I am running DOS 3.7 on it and it runs via the Beeb using its display and keyboard.

However, I don't receive any of the original Torch manuals so the original software for it. Do you know anyone who uses one or a Torch user's club?

Also, what is the maximum memory I can upgrade it to? Can I directly attach an IBM 182 key AT keyboard, Epsom dot socket, to it or via some unit, as not all the keys on the Beeb act as those on an IBM.

What are its limitations? Will it run all IBM software eg. Windows, Desqview, DR-DOS 5, Pagemaker, Corel DRAW? Can I expand it? What is extended vs expanded memory? What are accelerator boards? Can I upgrade the 8086 or should I get another motherboard?

I am quite fond of my Beeb and do not want to sell it. However, your suggestions/advice would be most grateful. Any help of any sort would be appreciated. Perhaps you could print my phone number so someone reading may help: 621-764248. I have tried other places, but to no avail.

Moslem Haq, Birmingham

AS THE TORCH GRADUATE stands 256K was fine for the most basic of tasks when it came out (sometime in the mid 70s). Now, however, 640K is regarded as the minimum amount of RAM in all PCs and even this is a bit limiting. I don't know whether the Torch can be expanded any further, but I would say it probably could be, although not further than 640K.

Unless there is a 5-pin din socket, I doubt whether a keyboard could be automatically connected to your machine, but again, it could be possible. The problem would be getting the computer to recognise all 122 keys - if the BBC hardware can't do it itself, then an external keyboard may just replicate the Beeb's own keys and functions.

When the Torch came out, an 8088 processor with 256K was, as I mentioned earlier, an acceptable and usable

hardware configuration. Nowadays though, an 80286 is almost regarded as the minimum set-up to have.

Applications such as Windows, Desqview and DR-DOS would have problems running on an 8088 processor, as it is not powerful enough to handle operating systems, for instance, that feature multi-tasking. It is possible to get Windows running on an 8088, but it really is sluggish and virtually unusable. And if you're thinking about running those with 256K then think again - 1Mb is more the amount you should be looking at.

There is some hope though. You could replace the 8088 with an NEC V20 or V30 processor which would increase the speed of the 8088 from a mere 4.77MHz to a more respectable 8 or 10MHz. Then applications such as Windows would be less sluggish, but you'd still have the memory problem.

An accelerator board could be used in one of the 8-bit sockets, presumably, but the cost of buying one could be almost as much as getting a separate low-end PC compatible. Then you could use the Beeb and the PC for the things that they were really made for.

As for as user groups go which might be able to help, you could try Beebug, a BBC user group, by writing to: 117 Hatfield Road, St Albans, Herts AL1 4JS. Or if it can't help, you could try the British Association of Computer Clubs to find a club that might be able to help. It can be reached at: Banc Y Ffawcys, 14 Bron Y Glyn, Bwllydd Arms, Carmarthen SA33 6JB. Unfortunately we have no records of a Torch user group.

## TIP Ribbons located

I am replying to your letter in issue 143 regarding the Juki 5130 Daisywheel Printer. Your reader, Mr Simon Hodgkiss has been trying to obtain ribbons for this printer.

Various makes of ribbon have been used in my printer for a number of years, but the one that seems to be around at the moment in quantity is IBM type 1299065. In fact, recently I picked up a dozen or so from a market stall for 50p each, which can't be bad.

However, there are three types in all as follows: multistrike, singlestrike and connectable. The multistrike one is the only one suitable for re-inking as the rest are a plastic type ribbon. Your reader will be able to obtain them from Diamond Computers, Winchester 061-257 3999 or



\* Hopefully, making the Amiga recognise an IBM partition on the AS50 hard drive shouldn't be an insurmountable problem

Wilding Office Supplies. They are a very common ribbon and were also used in quite a few typewriters.

I am hoping that one of your readers may be able to help me too! I am trying to obtain a manual for a Juki F100. Juki seems to have vanished completely. I have not seen any of its products for years. Has it gone bust or has it been bought? Does anyone know? Perhaps someone may have a phone number. My address is 6, Levent House, Hill End Road, London E11 4RS.

Terry Martini, London

**THANKS FOR THE TIP.** Can anyone supply a manual? As for Juki, I'm not sure where it's gone.

## Worldly transfers

Two problems for you and your readers.

First, how can I best get my computer and that of my brother in New Zealand to pass information to each other? We are both researching the history of our family and our separate databases are getting quite large. I have an Atari STE and he has a BBC Model B. Do you know of any programs which would enable us each to produce disks which the other's computer could read? Disk size is not problem as we both have 5.25-inch disk drives.

Someone has suggested that a program called BeebDOS would enable the Beeb to read from SIG-DOS formatted disks and I have no problem turning my data into ASCII files and placing them on MS-DOS formatted disks. I assume BeebDOS would also allow the Beeb to write to MS-DOS formatted disks? Is this the method you would recommend and do you know where we can obtain a copy of BeebDOS?

Secondly, why does the beautiful artwork I produce on the

## Drive time

Would you please inform me as to whether it is possible to use either a PC double-sided disk drive or PD HD disk drive (with HD module of course) as a second drive on my Atari STE, and also whether PC hard drives will work with it.

I am also considering the purchase of an Atari SM124 monitor. However, I am very unhappy with its appallingly small size. Are there any larger alternatives at all to Atari's inadequate offering in the high resolution area? For example, can a VGA monitor (or similar) be made to work with an STE? I. Spake, Feltham

The STE's disk format is based on the same format of the PC so it should be possible to use either a 5.25 or 3.5-inch PC disk drive on an STE. The main thing is to get the details of the interface or cable from the drive so these will not doubt vary between products, and then match those up with the pins on the STE's external disk drive port. A couple of points to watch out for are whether the drives have their own power supply or not, as they may need more power than the STE can supply. Unfortunately the PC hard drive isn't compatible with the STE so you would probably be better off selling it and using the money to buy an Atari hard drive.

SM124 monitor come out slightly elongated when I print it out (A4-meets) on my 6-pin LC18 (the install printer option is set at 88%) Is there any way that I can get a more true-to-scale print-out?

Bob Holland, Croydon

CONVERTING THE DATA to a PC formatted disk does seem to be the way to go. Because the databases would presumably produce files that carry headers etc., specific to the application, that data would have to be converted to ASCII to be used by the antipodean machine.

BeebDOS sounds as if it could do the job but I don't know where to get a copy of it from. Perhaps you could try a BBC Users group.

An alternative method of transferring the data would be for you to send each other your own computer's disks, and then you both could transfer the data across using a null modem cable and a comms package. Or you could transfer the data to each other over the phone line using a modem, or upload it to a BBS. This would require a modem

though and the phone bill would be prohibitive, but it would be a faster way of doing things.

The printing problem could be the printer driver you are using. Star's LC-10 is capable of basic Epson emulation but you could try and get hold of a driver specifically for the printer. You could also try printing out through another type of printing program or art package.

## Modem mayhem

Some time ago I picked up a modem for the BBC Micro at a local radio and electronics rally. Unfortunately, it was without instructions or documentation of any kind.

The unit itself is a cream-coloured plastic box, with a red front on it bearing the name DESIGN (presumably the manufacturer's) along with five green LEDs and three push switches. Three cables emerge from the back, namely mains,

telephone and RS-423. The associated software came on a ROM chip, which I am using on a ROM cartridge on a Master 128.

The unit doesn't seem to get any sense out of it, or the software. Therefore, I would be extremely grateful if anybody can give me any information which may help me to get the thing working! If somebody has an instruction manual for a unit such as mine, which they could let me have a photocopy of, then I would be more than willing to pay any copyright/postage costs involved.

Incidentally, when I tried ringing the London phone number printed in the front of the unit, all I got was a carrier tone! Not much good without a working modem! Gareth Hughes, Croydon

**BECAUSE** the modem has three switches along the front that may indicate that it isn't an automatic modem. Is there a socket in the back of the modem for a telephone? If there is then you might be able to plug a phone in, dial the BBS numbers on the phone itself, then press an 'on-line' button on the modem to get a connection.

Of course, this depends on whether or not the computer and the modem are communicating to each other in the first place. When everything is connected and the software is running, do any of the LEDs flash or flicker when you press a key. If they don't then the cable may be at fault.

Other than those basic tips I can't help much further. Give Modems Marketing a call as it markets the Demos modems. Modem Marketing can be reached on 0786 470047. ■

## PROBLEMS?

Write with your technical problems to: Tech Tips, Future Publishing, New Computer Express, 30 Hornsea Road, Street, Bath BA1 2BW

## Got those 1541 blues?

In the Express office this week we got a call from a distressed reader who couldn't get her Commodore 64 1541 disk drive to write to any disks. It could read the disks alright, but there was no way it could format or write data to them.

To try and fix the problem the reader replaced several chips in the 1541, including the 6802 processor and the CIA chips, but to no avail. Obviously she had gone to a lot of expense to try and get things working properly, but now she's really stumped.

The only other option seems to be to see if the read/write head is out of alignment or needs cleaning. In order to align the head it would be best to take it to a technician. It is possible to do it oneself but it is quite a delicate operation. Cleaning the head involves removing the case of the drive and tightly using a drop of alcohol to remove the dirt that will no doubt be there. Somehow I think the problem is more than just a dirty head but you never know.



• Got a Commodore 64 which can't read disks? Perhaps the read/write head is out of alignment or needs cleaning













TEL: 061  
773 3897  
Ext 21

**BANKHOUSE**  
Old Co-op Bldg, Warwick Street, Prestwich  
Manchester. M25 7HN

FAX: 061  
773 0140

## LEISURE

### ATARI

Discovery STEF 8 titles.....	£215
Turbo STE Joy/12 titles.....	£265
Family 1040 STE 8 titles.....	£305
Lynx Game System.....	£74
Portfolio.....	£196

### AMIGA

Screen Gems.....	£309
Class 90s/1st Step.....	£390
10 Astro Game Pack.....	£57
Disk Drives, Monitors, Emulators, As Available Phone for details	

### FAX'S

Amstrad 960AT.....	£529
Amstrad FX5000.....	£339
Toshiba 160.....	£439
Toshiba TF102.....	£389
Toshiba TF232.....	£508

### SPECIAL BUSINESS PACKAGE

Goldstar 386, 40HD, 1Mb  
Colour VGA, Software, 1 MT  
81 24 pin printer including  
sheet feeder, cables, on site  
maintenance  
**£820** While stocks last

### PORTABILITY SPECIAL

Hyundai LT3 286 1Mb RAM  
20Mb HD, Including Canon  
MJ10c, Battery Charger,  
carry case,  
**£799** Limited Stock

Everex E series	
286/16 40HD Col.....	£697
386/20 40HD Col.....	£891
Apercol XEN 5	
286 47 HD Col.....	£845
386 50HD Col.....	£1010

### MITAC PC'S

286/12 1.2 FDD, 1 Mb RAM,  
40Mb HD, Colour VGA.....£797  
120Mb HD, as above.....£972  
386/20, 1Mb RAM,  
40Mb HD, Super VGA Col. £1299  
As above, 120Mb 110.....£1494  
Mitac PCs supplied with Microsoft  
Windows 3 & Mouse F.O.C.

## SEGA

Mega Drive.....	£119
Game Gear.....	£79
Master System.....	£49
Master System Plus.....	£64
Wide variety of Games Available	

## DISKS

Unbranded ca	10	100	250
350k DSDD	40p	30p	25p
720k DSDD	50p	40p	32p
1.2Mb DSHD	65p	55p	45p
1.4Mb DSHD	1.00	80p	45p
FREE Labels & Disk Boxes			

## LASERS

Brother HL4.....	£719
Brother HL4PS.....	£1189
Brother HL4E.....	£989
Brother HL4V.....	£1079
Brother HL4PS.....	£1489
Canon LPB4.....	£695
Canon LP801.....	£1097
Canon LP801T.....	£1487
HP LJ11L.....	£1000
HP LJ11 D.....	£1609
Parasonic KXP4420.....	£675
Parasonic KXP4450.....	£1100
Parasonic KXP4455.....	£1650
MTY904.....	£699
MTY905.....	£759
MTY906.....	£829
MTY911.....	£1099

### AUTHORISED DEALERS

for Apricot, Everex, MT,  
Novell and many more  
Phone for Details

### MITAC PORTABLES

3030D 386, 160khdz	
40Mb, HD, VGA.....	£1499
As Above + Fax Modem.....	£1629
3025D 386SX Notebook	
20Mb, VGA.....	£1499
As Above + 40Mb HD.....	£1629

Mitac Portables supplied  
with Microsoft Works  
NB includes Windows 3

## AMSTRAD

GEM 3	32MD	14CD	14HR
3085SD	421	499	578
3085DD	460	538	617
3085HD	617	538	774
3286SD	499	578	656
3286HD40	754	815	891
PCW8256.....	£289		
PCW8512.....	£439		
PCW8512.....	£479		
ALT386.....	£1559		
ALT286.....	£1274		

## PORTABLES

TOSHIBA	
T1000SE.....	£672
T1000XE.....	£626
T1001LE.....	£941
T2100XE 20.....	£1130
T2100XE 40.....	£1256
T2000SX 20.....	£1669
T3100E 20.....	£1256
T3100E 40.....	£1511
T3200SX 40.....	£2264
T3200CSX.....	£4217
Hyundai 286.....	£625
Hyundai 386.....	£1199
(with free carry case & file t/r software)	
Commodore CLT.....	£1025
Phillips PCL101.....	£449
Phillips PCL205.....	£1275

## PRINTERS

MT81.....	£109
MT82.....	£259
Citizen 120D.....	£110
LX400.....	£135
LX950.....	£199
FX1080.....	£395
LQ400.....	£205
LQ2250.....	£729
Parasonic 1081.....	£122
Parasonic 1123.....	£178
Parasonic 1180.....	£138

## Modems & Fax

Worldport 9600.....	£585
Worldport 2496.....	£375
Worldport 2400.....	£295
Worldport 2423.....	£253
Acoustic Coupler.....	£40

## CANON

**BJ10e**  
**£205**

## SOFTWARE

Autoroute Plus.....	£202
Corel Draw 2.0.....	£299
Framework III.....	£348
Harvard Graphics.....	£279
Laplink III.....	£79
Lotus Agenda.....	£259
Lotus Works.....	£105
Lotus 123.....	£315
Norton Utilities.....	£108
Microsoft Works.....	£120
MS Quick BASIC.....	£59
Paradox 386.....	£347
PC Tools V6.....	£89
Smartware II.....	£414
Superbase 4 V1.2.....	£249
Supercalc 5.....	£79
Wordperfect 5.1.....	£279
Wordstar V5.....	£229
Windows 3.0.....	£75
Word Window.....	£299

## MISC

SWITCHES  
DATA CARTRIDGES  
TAPE UNITS  
MICE UPS TONERS  
CARTRIDGES  
FAX PAPER

## SPECIAL OFFER

Recob 6000 Postscript Laser  
printer **£899**  
including free Recob camera  
worth over £100. Includes  
one year on site maintenance.  
Limited stock available.

## TERMS

All prices exclude delivery and  
V.A.T. All good U.K. source-  
with Manufacturers Warranty,  
Cash, Cheque, Credit Card with  
order. Tenders welcome.  
Goods offered subject to  
being unsold.  
Goods not offered on trial basis.

**PHONE 061 773 3897**  
**EXT 21**

PRICES & SPECIFICATION SUBJECT TO CHANGE E & OF





## SPOTLIGHT ON

## YOUR FANZINES

Since we asked you to send in your fanzines back in issue 139 we have received a steady stream of A4 envelopes containing your very own publishing masterpieces.

Some have been very impressive; issue one of *Console Crazy*, for example, is excellent fun and we can highly recommend it, but the makers have asked us to not feature it in *Spotlight* until issue two which they promise will be an absolute corker. Well, we couldn't wait so here's a tip to all console owners - send a cheque or PD to Dave Rawcliffe,

*Console Crazy*, 28 Watgate Lane, Woolton, Liverpool. (Don't worry Dave, we'll be a full blown post on issue two with just when the time comes).

But we still want to see some more, especially diskfests! And just to entice you a bit more, there are some prizes up for grabs for the ones that impress us the most - a 'know, games, utilities and other stuff that we find lying around the office that we don't want.

So editors, send in your wares. You never know, it might be the start of something big!

Colindale, Brentford TW4 9AB.

**PRINTER AMIGA GAMES (S)** - Amiga Games for sale or exchange. Large PD Library. Send SAE for list to K Harvey, 67 Waverley Road, South Brentford, Essex SS7 4AX.

**PRIVATE COLLECTOR** - Atari 516, Public Domain. Over 300 files. Send blank disk for info and SAE for list to: N Road, 72 Lancelotti Avenue, Strout, Kent.

**PRINTS SHARWANE** - Send blank disk and stamp for catalogue. Very cheap. Write to Frank, Camille Road, Luggit, Devon, EX14 9TT. IBM only. Telephone 0454 891 806.

**PROMPT PD** - Atari ST Public Domain. Send SAE and disk or a cheque for £4.50 to Prography, 390 Coulston Road, Old Cushton, Surrey CR5 1EF. We have very competitive prices.

**PUBLIC DONATOR PD ATARI** - PD Box 801, Bishops Cleeve, Leics LE65 3TZ. Tel: 0779 757682.

## R

**R&D PD** - For cheap Amiga PD and SAE for list to R&D PD, 23 Melmott Gardens, St Albans, County Tyne, Northumbria or send a disk for list and game. Also willing to swap.

**RICHARDS PD LIBRARY** - Support for Amiga. A massive range of demo, utility, music, AMOS, Sideways etc. Most disks £1.30. Send £2.80. All disks dispatched as soon as we receive the order. 71a Oaks Deep, Twickenham, Medx, TN1 4NS.

## S

**SAF PD** for the ST. Large selection of PD from £1. Send £1 or a disk and Slip for a list. All prices include postage and packaging. Send cheque or PD to Simon Gray, SAF PD, 6 Oxendon Road, London, W10 1SD.

**SANT JONIS SCHOOL LIBRARY PD** - Atari/ST PD software for sale or swap. Write to St John's School Library PD, c/o Mark Ark, 54 Beaconsfield Road, Stoughton, Cambs. MK10 3NS or telephone 0755 42553 after 4pm.

**SEBASTIAN PD ASSOCIATION** - Affordable Shoppers for PC users. Blank disk and SAE for catalogue and details to: Rosie, 63 Springfield Road, Glasgow G3 0DB.

**SCOTSDOT INTERNATIONAL** - For the ST. Send five first class stamps for disk catalogue to 47 Auldreighs, The Tynes, Edinburgh, EH16 3HQ. Disk supplied on request.

**SENJAL** - 14 Oakles Close, Old Road, St

Leonards on Sea, East Sussex TN37 7HB. Tel: 0434 703070.

**SHARWANE KING** - 3,000 items of Shareware for PC, plus support, membership, plus discounts. SAE and blank disk for details to C Smith, 10 Penwood Close, Westbury, Wilt. BA13 3UN. Tel: 0371 860053.

**SHEDDOOT PD** - For the Amiga. Only 75p per disk. SAE for details to 13 Chanton Road, Hyl, Chyd LL18 3BL. Three month update. Personal service. Helpfile for BASIC programmers.

**SKYFALL PD** - For the Atari Amiga. The worlds largest PD, for the Amiga. Spring 1991 catalogue list now. Send an A5 SAE for our demo disk to Skyfall, PO Box 2228, Birmingham B4 9EZ.

**SOFTVUE PD** - Unit 5, Shaftfield Park, Elms Avenue, Waterlooville, Hants PO7 7XN. Tel: 0755 265950.

**SOLIDITY SOFTWARE** - 61 Rufus Gardens, Totter, Hants SO4 3TA. Tel: 0753 668482.

**THE SOURCE PD** - For the Atari ST. Completed demo disks £1.80 each. Write to: The Source PD, 73a Waterline Lane, Norton, Stockton, Cleveland TS20 1HH.

**STAR SOFTWARE** - C/o Fryns, Carmel, Leamington CV4 7JG.

**ST CLUB** - 5 Sutton Place, 49 Storey Street, Northampton NN1 1UX. Tel: 0603 410241.

**ST PD COMPLETION DISKS** - Send SAE for details or £2.50 per disk stating disk numbers 1 to 5. Write to: A. Burns, 61 Convent Place, Gullincho, Peterborough PE4 6EL.

**THE ST ADVENTURE PD LIBRARY** - PD for all ST users. Adventure, more adventures and even more adventure. Catalogue disk just 50p. Write to John R Bernsey, 32 Merivale Road, St Albans, Herts AL1 9ED.

**STAR PD** - Software for the Atari 516/6. Hundreds of disks available. Send blank disk and SAE for the PD and disk based catalogue to Star PD, 1 Solva Road, Clee, Shropshire, ST7 7NR.

**STATE 888 PD** - For ST art, demos (good swifteners) and games! Very cheap! Just send an SAE and disk to: State 888, 34 Old Lankar Road, Chislehurst, ME3 4WV.

**STEVES AMIGA PD** - Catalogue disk. See demo, play games, usable virus killer and a PD catalogue. Send £1 plus disk SAE to Mr S Fish, 1 The Court, Walsley Garden City, Hertfordshire, ALT 4JF.

**STUDS&KIDS PDs** - Sandra Sharkey, 25 Park

Road, Wagon, Levens NM1 7AA. Tel: 0942 492521.

**STURUP FLOWERS PD** - New library for ST users. Send an SAE for a free catalogue to STURUP, 3 Road Wood, Chislebury, Somerset BA6 8BN or call 0498 70507 and ask for Matt.

**THE SURETY PD CLUB** - Atari ST PD for only £1. Send SAE to the Surety PD Club, 25 Vincent Hill, Regent, Surrey PO4 5AH.

**SWAP** - PD software from Top. Send SAE for free catalogue. Atari ST only. SWAP, 50 Coombe Lane, Taunton, Devon TA2 8BA.

**SYSTEM PUBLIC DOMAIN** - Amiga/demos. For 4 meg of the best graphics, RISCOS APS, sites, Drexfiles, sports, games, music and samples send five formatted disks, an SAE and £1 to: Highover, Udding, Ray, East Sussex TN11 5H. Cheques postal orders to Mr CJ Thomas.

## T

**TOTAL PD** - for the ST. Send SAE for free catalogue to Total PD, 27 St Johns, Brighton, East Sussex, BN1 7ND. We buy, sell and swap PD.

**TOWER TOP PD** - The Congen Corporation, 4 Congen Close, Ditchley, Milton Keynes MK9 7JL.

**THRESDOT PD** - Exchange your unwanted PD disks with us free. Send SAE for details and list to: Thredot, 15 Sullys Garden, Newbury, Berkshire RG16 8AZ.

**THREPLX X** - We are the only PD Library devoted to ST Atari Software! £2 per disk. Write for your free catalogue, also other software available. Type X, Redfox, Orsett, 3 Lamondale, Carlton Drive, Pinner, London SW16 2DY.

**TRUST PD** - 18 The Park, Southwark, Halifax, HD 90Y. Tel: 0855 53251.

**THRESDOT PD** - Catalogue issue two out now. PD, DTP, WFF, art and clip art for Atari 516/6. No games. Send disk and SAE for catalogue to: Thredot, Congen Close, Ditchley, Milton Keynes MK9 7JL.

## V

**VENUS SHAREWARE** - BM Shareware: Amateur reels, technical, engineering, Windows, utilities and more. Telephone 0252 807660 for your free catalogue.

## W

**WAPRIVE** - The best in Amiga PD. Send for free catalogue. Disk 10p, 10p 10p per order. 113 Burton Avenue, Bally, Devonshire PL4 6BB.

**WEST COUNTRY PD** - ST Public Domain and shareware. Large library. Send stamped addressed envelope and blank disk or £1 for catalogue to PD Box 2, Lynton, North Devon, EX35 6BS.

**WEST LONDON PD** - 8 Barkley Road, Westborough, Middlesbrough TS6 1BU. Tel: 0964 10321.

**WHITE HEAD PD** - Atari ST £1.40 per disk. Send two second class stamps for list sent to: Hakan Abadi, White Head PD, 15 Cavendish Mansions, Clapton Square, London E5.

**WICAP PD** - 179 Waverley Road, Reading, RG2 6JN.

**WOOLEYSDOT PD** - Handmade/Stone Cottage, Ramdun, Darblin, Perthshire, Scotland FK15 0BA.

## X

**XI SHARWANE** for sale or swap from £1 for 5.25 disk and £1.20 for 3.5 inch disks. SAE for list to: Kewell, 24 West Clifton, Penryn, Co. Durham DL17 0H.

Watch out for Future's exciting new *Public Source* magazine, packed with reviews and features, will hit the newsstands in October.

## SECOND-HAND PRICE GUIDE

- The following chart is compiled from the reader ads we have received here at *Shopping Express* over the past month. The items listed are those which have been advertised in significant quantities.
- Lower priced products will be some range as usually in need of some repair.
- Higher priced items are invariably being sold alongside numerous add-ons and mountains of software (Amiga Add-ons are the worst offenders in this respect). This means that the figure quoted at the higher end of a range will sometimes be higher than buying a machine new.
- Remember, this is only a rough guide, so if you find an Amiga down the local market for £20, buy it for you.

Product	Range	As	Trend
Spectrum	£40-95	£70	+
Spectrum 128	£120-220	£105	+
Spectrum Plus 2	£150-200	£135	+
Spectrum Plus 3	£80-180	£170	+
CSA	£50-95	£85	+
CP/M486	£250-300	£148	+
CP/M5128	£220-280	£130	AA
88C 8	£170-280	£270	NEW
IBM Clone	£80-250	£145	NEW
PCWR5128	£200-300	£148	+
PCWR512	£200-300	£100	+
XT PCs	£125-250	£275	+
AT PCs	£280-500	£170	+
386 PCs	£150-£1,475	£1,000	+
S208TE	£250-400	£268	+
10408TE	£160-450	£335	NEW
5205TSM	£160-750	£295	+
5205T	£199-420	£380	+
10405TSM	£280-600	£430	+
Amiga 500	£220-950	£390	+
Amiga 500 (2Mb)	£250-1,200	£620	AA
Amiga 500 (5Mb)	£275-1,200	£625	NEW
Amiga 1000	£200-600	£490	NEW
Amiga A2000	£649-1,000	£825	NEW
Amiga B2000	£599-1,200	£900	NEW
Gateway	£55-100	£75	+
Magnum	£125-250	£190	+
Function	£220-260	£230	+
Lynx	£25-230	£90	+
PC Engine	£95-250	£180	+
Portfolio	£95-250	£125	+
LC10 printer	£80-120	£100	+
9-Pin printers	£40-75	£80	+
24-pin printers	£300-350	£380	+
Laserm printers	£495-700	£550	NEW

- Advertised most frequently
- ▲ More expensive than last month
- ▲▲ Over £50 more than last month
- ▼ Less expensive than last month
- ▼▼ Over £50 less than last month
- Same as last month
- NEW New selling in significant amounts

● Many of all varieties were shifting in huge amounts last month for some strange reason. Perhaps because the owners have finally decided to make an appearance the kids are getting rid of their toys to raise money for skateboards, the fickle lot.

In the on-going saga of 'can you actually find a second hand Amiga cheaper than a new one?' we've decided to split up the £500 according to the various upgrades people have added. It hasn't really made much of a difference, though, as the same figures are still very, very expensive. ■

## DAFTEST ADS OF THE WEEK

Every week in the reader ads pages of *Shopping Express* we receive some absolute gems, adverts which people have sent in apparently for real, but which just make your jaws drop in astonishment.

It would be so nice to keep them hidden away where you might miss them, so here's a quick round-up of the best odd ads we've come across in the past few weeks.

**SWAP** my nine year old sister for *Scriptscript* colour printer, preferably 300DPI. Canon laser copier considered, treat.

have Mac drivers. Call Richard on 0673 346030.

**SWAP** Shirley Bassey original Gold *MTW* swap for ST hard drive or 9600 modem (or faster). Phone 0252 823083, 7pm to 10pm. Will take cash offer.

**TWO** free blank disks (3.5 inch) with every packet of boxer shorts, two pairs per pack, good quality, normally £5. 100 pairs will cost £2.50. Contact M. Jaque, 6 Palsley House, Kewdale Street, Laleham, Bedfordshire MK43 9BP.

## PUBLIC DOMAIN

## THE PD COLUMN

James Leach powers in with a vibrant new PD Column - this week he reports on a speedy package to add up your accounts, fun games for kids, gonk banking and much, much more...

Databases, accounts and home business packages are all well and good, but they can be costly. If you're looking for something to handle your muddled affairs, PD is a great place to start. Stalwart PD company Amiganuts has released **Amibase Professional II**. As its name suggests, this is a powerful database capable of handling hundreds of entries and incorporates a sophisticated find system that allows you to retrieve data easily and rapidly.

The first time you use the program, you set up the fields how you want, taking their number, each individual length and their position until you're happy. Then single keystrokes take you into the various modes; browse, add files, delete files or change files.

It's possible to search for anything in any of the fields, and parts of words are recognised. For example, searching in a name file for 'ton' will find everybody with a 'ton' in their name, be it at the start, in the middle or at the end. This flexibility is

the great strength of **Amibase** and sets it apart from the simpler card files usually seen as PD.

It's great speed is an added bonus. Amiganuts warns that **Amibase** isn't really intended for the first-time database user, but the documentation included is clear and easy to follow, so with a bit of experimentation, anyone should get to grips with it without too many problems. But just in case, Amiganuts also has a friendly and knowledgeable voice on the end of the telephone to help out those terminally adrift in the world of files, fields and fast-finds.

## PICTURES AT AN EXHIBITION

Well, wizard **Pictureware** has put out another selection of fine images for the Amiga. It only works with HAM displays and therefore shows high quality screens with 4096 colours that will far take your breath away.

Many demos have nice graphics,



• If you've got it, flaunt it with a package from **Pictureware**

but one of the good things about **Pictureware** is that there isn't a jangly tune playing, using up lots of memory and making it difficult to fiddle around with the pictures themselves. Half the fun of good graphics should be seeing what you can get up to with them and **Pictureware**'s are certainly worth a peek. If only to expand the horizons of your own graphical genius.

## PUBLISH AND BE DAMNED

If you're a budding magazine or fanzine producer, **PageStream** from Caledonia PDL might be right up your street. It's a desktop publishing package which allows you to manipulate words and pictures with an impressive degree of accuracy and a fair turn of speed. It runs from the **WIMP** environment (that's Windows, Icons, Mouse and Pointers) so it's easy enough to get to grips with.

DTP can be a complex subject, but **PageStream** makes things as painless as possible, and in no time you'll be dropping pieces from any of the major ST art packages into your text. A variety of fonts is supplied and the shape and size of the words are easily manipulated. You can also bolden or italicise, using keyboard shortcuts.

One megabyte of RAM is recommended because the program itself takes up a lot of space, but if you



## AMIGANUTS UNITED

169 DALE VALLEY ROAD, HOLLYBROOK, SOUTHAMPTON, SO1 6QX.

Tel enquiries: 0703 785680, Mail Order only.

DISTRIBUTORS OF THE FANTASTIC AMIGA CODERS CLUB DISKS

EUROPEAN DISTRIBUTOR FOR THE WORLD FAMOUS T. BAG DISKS FROM MERLIN SOFTWARE

- 1036:** **Amibase Professional II** (v.1.2). The new additions to this database make it a must have. It includes a nice picture addition facility. (1Mb) .....£3.50
- 877:** 1 Across 2 Down. A fully fledged crossword program. (Data disk No: 1 is supplied free!), for only £5.00. Data disks 2, 3 and 4 are now ready at £2.00 each.
- 1068:** **MOD Processor v1.92**. make picture and/or music progs, adjust pic height/width. This version will load the new 8 channel octamed music and is excellent!.....£3.50
- 1075:** **Intuimenu**. The easiest way to run all your programs, the editing feature allows you to set up all your progs to execute at the click of your mouse.....£3.00

NO MORE WAITING! SUBSCRIBE TO THE WORLD FAMOUS AMIGA CODERS CLUB NOW!  
SEE OUR AD IN THIS WEEK'S SUPPLEMENT FOR FURTHER DETAILS.

### Leclercq Xavier's MASTER VIRUS KILLER V2.2 IS HERE!

This program is a 'must have' if you want to ensure that your collection is protected against all the latest and most harmful Viri around today.

**Mike Simpson's A-GENE**. The full two disk version of this excellent program is now available only from Amiganuts. If you have tried the single disk demo versions that are available in the Public Domain and were impressed, you will want this!

SEE OUR AD IN THIS WEEKS SUPPLEMENT FOR PRICE OF A-GENE AND MASTER VIRUS KILLER!

PLEASE NOTE THAT ALL PROGRAMS LISTED ABOVE ARE NOT PUBLIC DOMAIN



## LOOK

THE FANTASTIC (1Mb) EIGHT OR FOUR CHANNEL MIDI COMPATIBLE Octamed v1

Don't waste your hard earned money on the public domain v3.11 of Med! Octamed includes this program and you can switch from 8 to 4 channels at will.

Only £10.00, (£15.00 for non-European). This includes return post and packing. Payment in pounds sterling only. If ordering from overseas, send a bankers order/Eurocheque etc. (Credit card orders will not be accepted)

Into coding? - Want to learn? The **Amiga Coders Club** is for you! ACC 1-4 is the first four compressed issues of an excellent series for coders, even if you are new to the Amiga. If you want to learn Assembly, using DevPac, (or our own new ACC special assembler disk), this is the club for you! ACC 1-4 (compressed) £1.50. The **Amiga Coders Club** disks are packed with source, hints, tips, advice from many of the well known coders that are on the Amiga scene today. Issue numbers 5-14 are now available. Please note, (excluding the compressed introductory disk (ACC 1-4), and no. 12, the price for each issue of the ACC disks is only £3.00. ACC 12 is our birthday issue, it is a 2 disk set, and therefore the price is £6.00. **Amiga Coders Club Special!** Here is a low priced assembler package for all you coders out there in Anglaland. (Given a good review in *Amiga Format*) £5.00.

## PUBLIC DOMAIN

divide up your work into conveniently-sized chunks of a page or two in length, everything runs smoothly and, for a DTP program, quickly.

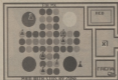
## TANKS FOR THE MEMORY

Don't be misled by the title of *Battle Zee* from ST PD publishers LAPD. It's not that hoary old wire-frame tank game, but a rather neat airborne shoot-em-up. You whizz over the surface of a planet (seen in side view) and blast the snake-like aliens which crop up along the way. It's colourful and it's very, very fast. Meanwhile, an excellent quality soundtrack plays in the background. The combination of speedy gameplay and demo-quality sound makes it quite an experience, and if you're into mindless blasting, *Battle Zee* could be for you.

## BANDS ON THE RUN

There seems to be rather a run on ST popular music quizzes recently. Everyone's partial to having their music knowledge tested occasionally, but the concerted effort by various PD companies could well breed a generation of Atari-using Mike Read look-alikes (or worse still, Paul Gambaccini).

The first is from BaSoft, which is very specific about the questions it asks. Disk *BP02* contains in-depth queries on Kate Bush, Phil Collins, Dire Straits and Pink Floyd. BaSoft operates a system where you send a blank disk (or two, if you're single-sided) and C1, to receive anything in its catalogue.



• **Ludo. Not hard, not spectacular, but fun nevertheless (if you're a child)**

In total contrast, *Nightshift PD* has produced a pop quiz called *Popeyed* which features a minor road accident. The story unfolds across by screen as you get more of the questions right. It's a weird idea, but things hardly return to normality when you see a couple of scantily clad girls (the offending drivers).



• **There he is! Get him! Get him! Bank the Gunk is certainly insidious**

arguing about whose fault it was. The humour with which *Popeyed* does make up for its lack of taste and the questions are nice and tough, but it's still one for when the kids are in bed.

## PSEUDO LUDO

If the sexist sight of curvy wenches isn't your cup of tea, good for you. You might therefore be interested in the completely inoffensive games range from Trust PD (which also caters for the ST). The first one to cross my path is *Ludo*. It's simply, well, Ludo.

There is a screen representation of the board and each player must get his or her counter to the middle. Yes, as you might have guessed, this one definitely is for the children. The game is very easy to use, has bright colours and a plethora of sounds, so it should keep their quest for the duration of Neighbours at least.

One final game which is destined for children, but which is strangely addictive for people of all ages is *Bank the Gunk* from NBS PD. Quite simply, all you do is hit the geeks on the head with a hammer wherever they stick peep out of their holes. But don't let the dynamite that appears from time to time! Play it if you dare! ■

## THE ADDRESSES THAT MATTER

California PDL (for the ST) is at:  
280 Oldtown Road, Hilton,  
Inverness IV2 4PT

LAPD (ST specialists)  
can be contacted at:  
86 Lee Lane, Langley, Hemor,  
Derbyshire DE7 7HN

For Amiganos go to:  
160 Dale Valley Road, Hollybrook,  
Southampton SO1 6GX

Rather impressive Amiga graphics can be spotted at:  
Pictureviews, Aspet House, 21 Brynmill  
Crescent, Brynmill, Swansea SA2 0AL

ST games for the children can be found at:  
Trust PD, 18 The Park, Southwans,  
Hailsham HX3 9G

And the game for childish groupies is available on ST from:  
Nightshift PD, 6 Bantlin Rd,  
Beaconsfield, Stafford ST15 3JJ

*Bank the Gunk* (and much more) can be gleaned from:  
NBS, 1332 Gunville Road, Newport, Isle  
Of Wight PO30 5LH

**TERMINAL**  
NDT

**80286-16 inc ETHERNET**

**VGA - 1.44 etc MINI CASE**

**£595**

**TEL: 0922 616733**  
**FAX: 616737**

All prices exclude Vat. P&P U.K. £7.50  
By Insured carrier

NDT - Unit 18, Corporation  
St West, Walsall, West  
Midlands WS1 4DU

VISA Access E MasterCard

**PICTUREWARE**  
IS HERE!!!  
©N.J.N. Williams 1991

"Extraordinarily high quality...impressively clear images." - Amiga Shopper  
"Distillation of the pictures is very impressive!" - New Computer Express  
"Incredibly Awesome!" - Amiga User International

**Eight Disk Hyperdemonstration!**  
Only £9.90 all in!!

The answer to all your questions! Pictureware's Hyperdemonstration will astonish you. Using Gold Disk's Hyperbook, we have packaged our HAMASFT games with two catalogue disks, and a "special" disk with 12 superb pictures on it (in IFT). Including the Hyperdemonstration you get eight disks for £9.90 all in!! (Plus a free disk!) Including the Hyperdemonstration requires one meg of memory to run properly. (There's a lot in it!) We can supply a half meg board and Hyperdemonstration for £42.90.

Our most popular Pictureware titles include:

- Sunsets Disks 1&2 IFF??
- Motorbikes Disks 1,2,3 &4
- Compilation Disks 1&2
- The Nude Disks 1&2
- People Disks 1&2
- Household Plans Disks 1,2&3

Over 40 disks now available!

Can Disk £8.90  
Two Disk £14.90  
Four Disk £24.90  
Six Disk £34.90

LESS THAN £1 PER PICTURE

3 PICTURES PER DISK

**UNBEATABLE VALUE - Specially Preformatted Floppies**  
-Rock Bottom Price - Includes P&P-  
**10 Disks £8.50, 20 Disks £16, 30 Disks £23.50**

During Pictureware's development we've created pictures in all sizes and formats. Here's proving them for your fun and entertainment on SPECIALLY PRE-FORMATTED FLOPPIES. These sets of ten disks are currently available. No guarantees on the exceptional offer. If you like the pictures use them, if not delete them much quicker than a disk format, and use the disks as blank floppies!

**ASK ABOUT OUR HIGH QUALITY DIGITIZING SERVICE!**  
£5 per picture, including disk. 10% discount for 5+ pictures.

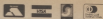
Orders by post to: Nik Williams Broadcast, 11111 House, Brynmill, Crescent, Brynmill, Swansea, SA2 0AL. Orders normally dispatched same day.  
24Hr Card Phone/Fax Hotline 0792 445648

When ordering by telephone please wait for FAX line to finish, at which point you will be connected to our telephone system.)

Via, Access, Credit, Cheques, POs. No cash please.

ONLY AVAILABLE FROM  
**NIK WILLIAMS BROADCAST**  
0792 470503

SEE  
BELOW FOR  
COMPETITION



**Tel 0257 276800**  
Main office & 24 hour order line  
**Fax 0257 274753**  
**Help desk 0490 3284**  
Weekdays 3-4pm  
Overseas orders please add £5.00  
All prices include P+P and VAT

## WITH *Intraset Ltd*

Our compendium of gaming software uses your computer's intelligence and logic to predict winners and advise you on strategy. Whether you're an experienced punter or a novice, with a little time and our range of software, you can maximise your winning potential.

**COURSEMASTER**  
Our proven horse racing program  
for both FLATS or JUMPS £24.95

**\*NEW**  
**TRACKMASTER**  
The Greyhound Racing Tipster £19.95  
Coursemaster & Trackmaster Twin Pack £39.95  
(Saving £4.95)

Using simple information from the racing card in daily papers or the racing papers, COURSEMASTER and TRACKMASTER will predict with consistent accuracy.

The winner is predicted as well as second and third places for tricasts. The programs also mention attractive long shots, recommended types of bets and most importantly warn when not to bet.

Successful betting extends beyond merely picking the winners and COURSEMASTER and TRACKMASTER will assist in managing your bets. They work out your winnings on the most popular types of bet including SINGLES, DOUBLES, PATENT, YANKEE, CANADIAN, print out your betting slips, and even maintain your betting bank account. SYSTEM BETS will regularly provide a system for MAJOR WINS with small stakes - try it and surprise yourself.

### COMPETITION Details and rules

Our company likes to see people winning, which is why we're running our fabulous 'Win a pc competition'. With every purchase you make, you will automatically be entered into the draw. You can also enter for free by sending a postcard to INTRASET.

1st prize - PC NT286 Colour  
2nd prize - Complete set of Intraset Business and Gaming Software  
3rd prize - Complete set of Intraset Gaming Software  
5 runners up will each win their choice of one Intraset title.

intraset's decision will be final on all matters.  
Send an SAE for list of winners.  
Draw dates 28/2/92 and 28/9/92

### SPECIAL OFFER

**POOLSMaster and COURSEMASTER**  
together for £44.95 (Saving £4.95.)

Our complete gaming suite: £110.00  
**POOLSMaster (British & Australian),**  
**PERM-MASTER, SPOT-THE-BALL,**  
**COURSEMASTER, TRACKMASTER**  
Saving £22.70



# Intraset Ltd

Send an SAE for full catalogue

*'A licence to print money'* Mr FC Hammond of Essex who won nearly £10,000 in 16 weeks

*'We have won many thousands'* Mr PE Roberts of Dorset who so far has won more than £46,000

\*Copies of these and other endorsements from actual customers are available on request.

**POOLSMaster British or Australian £24.95 each.**  
Poolsmaster British and Australian  
£44.95 (Saving £4.95)

### The Football Pools Predictors

Developed after years of detailed study, POOLSMaster uses a unique scientific formula to predict Home, Aways and Draws. The FORM PREDICTION option analyzes result possibilities with amazing accuracy. The unique indexing system allows for quick entry of fixtures and results, and updates itself season after season so there is no need to buy a new copy each year. Poolsmaster also contains a unique coupon number sequence predictor.

Together, both Poolsmaster editions cover all British league and cup matches and the Australian league.

**PERM-MASTER £19.95**  
The perfect companion for  
Poolsmaster

Designed for users of PERM systems, PERM-MASTER ends the agony of checking by doing it for you. It comes complete with several of the top perms built in but you can also create your own with the unique PERM EDITOR and PERM CALCULATOR features. PERM-MASTER is fast and easy to use and can be used for most block and single line perms. Additional discs of top perms are available at £14.95 each.

All programs available for IBM PC & compatibles, all Amstrad PCs, Amstrad CPCs, Atari, Amiga and CPC 6128. Coursemaster, Poolsmaster British and Trackmaster are also available for all Amstrad CPCs, all Spectrums and C64 & 128.

**SPOT-THE-BALL £17.95**

There is no more need for counting 'x's or using messy rubber stamps. Simply tell your computer where you think the ball is using the screen template provided. It will give you a print-out of up to 540 micro-fine crosses in your chosen shape or it can choose at random for you. SPOT-THE-BALL learns week after week and builds up a database of results for the SEQUENCE PREDICTOR OPTION.

**GUIDE TO POOLS AND PERMS £14.95**

The definitive guide to Pools permutations and betting systems

Written by the experts responsible for our successful software range. Master the fine art of prediction by reading this fascinating in-depth explanation of betting systems and perms. Plan a campaign for that elusive big win and use this book's tips on selecting the best matches and races and how to use perms to maximum effect on Pools, Horses and Dogs.

### INTEREST-FREE CREDIT

Spend over £80 and spread the cost at no extra charge! (Cheque purchases only.) Simply divide your order by 4 and send us 4 cheques each with your name and address and cheque guarantee number. Date the first cheque with today's date and post-date each of the other cheques by one month i.e. 1/5/91, 1/6/91 etc. We will then hold each cheque until it is due.

Send cheques or postal orders to INTRASET LTD (DEPTNCE) FREEPOST,  
10 Woodside Avenue, Clayton-Le-Woods, Chorley, Lancs. PR6 7BR.  
Phone or Fax for lightning service. All major credit cards accepted.

# THE EVENT HORIZON

Are you going to be there or be square? Read this page for a complete listing of the places to be, the people to meet and the things to do when you get there ...

## THE PLACES TO BE...

### Making the Difference

**Now - Tue 31 Dec**  
At the Science Museum, London. Info: 071-938 8380.

**Human Gene Mapping International Workshop** Mon 19 - Tue 22 August  
At the New Connaught Rooms, London. Info: 071-2693616.

**Computer Animation Competition and Exhibition** Wed 21 - Wed 28 August  
At the Arnis Centre Scotland. Info: 031 557 4242.

**PLASA Light & Sound Show** Sun 3 - Wed 11 Sept  
At Olympia, London. Info: 071-379 8174.

**Leeds Computer Extravaganza** Fri 13 - Sun 15 Sept  
At the New Exhibition Centre, Leeds University. Info: 0532 677 657.

**CPM & MSDOS User's Group** Sat 14 Sept  
At the Spring Lodge Community Centre in Witham. Info: 0578 517496.

### Business Computing '91

Tue 17 - Fri 20 Sept  
At the Earls Court Exhibition Centre, London. Info: 071-486 1951.

**International Police Exhibition and Conference '91** Tue 17 - Thu 18 Sept  
At London's Barbican Exhibition Centre. Info: 081-695 7700.

**The Works of Charles Babbage** Thu 19 Sept  
Lecture at the King Edward VII College, Tynes at 14.15. Info: 0603 863821.

**Effective Management of Information Technology Security Conference** Mon 7 - Tue 8 Oct  
At the Forte Crest Regents Park Hotel, London. Info: 071-587 1117.

**Computers Count** Tue 6 - Thu 10 Oct  
At Tynes Civic Hall. Info: 0603 863821.

**Business Communications Awards** Thu 10 October  
At the Savoy Hotel. Info: 0690 800 847.

**Charles Babbage's Impact on Modern Computing** Wed 23 Oct  
At the Science Museum, London at 17.30. Info: 071-486 1196.

**Image Processing '91** Tue 26 - Thu 31 Oct  
At Birmingham NEC. Info: 081-888 4488.

**System Builder** Wed 30 - Thu 31 Oct  
At Sandown Exhibition Centre, Esher, Surrey. Info: 0822 614671.

**Computer Graphics '91** Tue 5 - Thu 7 Nov  
At the Alexandra Palace, London. Info: 081-668 9933.

**Desktop Card '91** Tue 5 - Thu 7 Nov  
As above.

**Open Systems '91** Wed 6 - Fri 8 Nov  
Olympia, London. Info: 0784 472290.

**All Micro Show and Radio Rally** Sat 9 Nov  
Bingley Hall, Stafford. Info: 0475 272002.

**Computers in the City** Tue 12 - Thu 14 Nov  
At the Barbican Centre, London. Info: 081-668 4466.

**World of Commodore Show** Fri 15 - Sun 17 Nov  
A show for all things Commodore, presented by the Amiga Format team. At Earls Court, London. Info: 0462 420765.

**Vision and Reality** Thu 28 - Fri 29 Nov  
A conference on multimedia at Jaarbeurs, Utrecht, the Netherlands. Info: +31 (0)70 3560666. ■

## Golden Moments

**A** look back into the history of computing with Express. If it happened, we reported it first.

### ONE YEAR AGO

● Software publisher Lotus was besieged by the League for Programming Freedom. Members of the League were protesting at Lotus' successful prosecution of competitors who had used interfaces similar to that of 1-2-3 in their packages. The protest was far from violent, but the message was certainly serious - Apple is still attempting to sue others for allegedly stealing the Mac's look and feel.

● Commodore announced the C6408 - the console based around its successful C64 computer. Surprisingly, not many people were willing to buy a system based on an eight-year-old computer that lacked many of its beginner's facilities: it lasted less than a year before its withdrawal.

● Sex with your computer will be the only alternative for the Commodore, according to a US librarian UK lecturer. He predicted that in the future computers will be wired directly to the pleasure centres in our brains, saying that "the only sex organ anybody has is in the brain". This seems less than true to us, although we are aware of those who's only brain is in their sex organs!

### TWO YEARS AGO

● Nintendo sought an injunction against Blockbuster in Newark, USA. The shop was allegedly renting out games cartridges along with photocopies of the instructions, an activity which Nintendo was less than happy about. The problem is far from solved, with many indie rental chains now catching on to the idea of hiring out games, without the permission of the games' manufacturers.

● The extent of the new-fangled crime of computer burglary was revealed by police when they showed members of the press a haul of stolen hardware valued at £306,300. Prime targets for the thieves were identified as schools, colleges, warehouses and offices. At the time, the police estimated that if you were to buy a second-hand computer, there was a 40 per cent chance that it would be a stolen model.

# The Insider...

Why, oh why has the European Computer Entertainment Show gone trade only? Is it the recession? Is it interminable quibbling? Is it a notorious organisation or is it because Atari mentioned that it might think about attending? Who knows? We will find out in due course.

By the way, if you have any insider info which you think needs disseminating, you should send it to: The Insider, New Computer Express, 30 Minnowbrook Street, Bath, Avon BA1 2BN.

## HOLIDAYS IN COMMEDIA

Anytime this week has been a tortuous high octave, triple whammy. The Insider went to Bali to soak up some sun, hang with the beautiful people, the ex-hippies in search of cheap flights and transcripts of early Steve Jobs speeches, and the public relations people who are trying to drink their way around the world whilst still enrolling the virtues of various brain-muscling computer so-called games.

So this copy is being filed by my Toshiba laptop and business card. From the objective security of this island idyll, I can reflect on the cat-in-the-hat nature of the computer world.

For example, the change in nature of the ECES from trade/public to trade only is already making a great many people look to their pockets and weep. Last year's show was a huge success with queues reaching around the block and companies walking out of Earl's Court swelled to bursting with free food and customer's dough.

This year looks like being a little more down with less booze, no punters, and no Betty Boop singing her nite off. You can almost hear the organisers of the All Format's Fair sobbing in sympathy.

## IS THIS SICK OR WHAT?

Express hacks are coming in for much stick from the beleaguered burghers of Ruffin's Board level.

**What? What? What? and yeah again What? Gossip, scandal, sculduggery and general rumour. Read on...**

Following the SACK front cover which was so admired throughout the industry, certain sponges and BBS people took to firing insults around to the effect that hacks and hackettes on this glorious organ were "trained chimpanzees" and "vipers".

There were even threats from the free-speech loving, retributive, sorry, representatives of PD to kick Express off a number of boards.

Insider thinks that this curtailment of the debate is showing the PDers up. It could even lead one to believe that they are protecting just a little bit too much for such fluffy, clean, sweet enthusiasts.

This, of course, does not imply in any way that these people are anything short of sanity in their pursuit of the truth and freedom of speech.

● **WIN CS for doing next to nothing! Bad service! Faulty goods? Doggy exhalings? Write and tell The Insider.**

## Computer Graphic Designer



applied interactive technology

We need a computer designer to work in-house to supplement our staff team.

You are talented, imaginative and keen to work in a challenging environment. You have a minimum of 1 years design experience and should be conversant with Deluxe Paint Software with a knowledge of Storyboard Live, Corel Draw and AVC being an advantage.

A.I.T. is a Henley based company working on a variety of leading edge design and technology projects.

To find out more, phone in the first instance or send your CV to:

Judy Harrower  
A.I.T. Limited,  
The Old Assembly Rooms, 16 Bell Street,  
Henley-on-Thames, Oxon RG9 2BG  
0491 578272



## Europe's Leading Development House

Images Software has superb opportunities for talented freelance Programmers and Artists in console and computer games development. Due to our continuing success in development for major US and UK games publishers Images Software is now looking for new talent to join the team.

We will be placing a whole series of multi-format conversion and licensed projects in the next few weeks with freelancers like yourself. If you have a good track record and are looking to 'trade up' to a better development company then call, write or fax for more information:

Karl Jeffery  
Director, Images Software Ltd,  
Solent House, 183 West Street,  
Fareham, Hampshire. PO16 0EF

Tel: (0329) 822672  
Fax: (0329) 822786

# LIGHT PHAZERS

## FOR THE BEST IN HOME COMPUTER FUN!

### PHAZER PACKS NOW AVAILABLE FOR THE FOLLOWING MICROS:

Amiga .....	£39.99
Atari ST/STE.....	£39.99
CBM 64.....	£29.99
Amstrad CPC .....	£29.99
Spectrum +2/+3 .....	£29.99

ALL PRICES INCLUDE VAT, PACKING & POSTAGE

**ALL PHAZER PACKS INCLUDE AT LEAST TWO FREE SOFTWARE GAMES!**

Please send cheque/PO made payable to:- **LIGHT PROMOTIONS**

166 Deriwyn, Dunvant, Swansea, SA2 7PF.

PLEASE STATE MODEL REQUIRED. For credit card orders ring 0792 205491



**FULL  
MANUFACTURERS  
GUARANTEE**

# CREATIVE ACCOUNTS

Using a low cost spreadsheet doesn't necessarily mean you are limited to basic number crunching. Dave Golder found a software package which takes data manipulation into a new dimension

**PRODUCT:** 3-D Calc Spreadsheet  
**MACHINE:** 1Mb Ataris and above  
**FROM:** Microdeal  
**CONTACT:** 0726 68020

In principle spreadsheets are basically the same today as they were when they were first introduced, based on grids of 'cells' into which you can enter numeric, data and mathematical formulas for manipulating that data (this usually means adding up figures). A few enhancements and functions have been added, such as the capability to generate graphs and charts from the data, but the only real revolution of any sort was the introduction of the new spreadsheet.

Instead of just having columns and rows on a spreadsheet, a 3-D spreadsheet introduces an element of 'depth' as if there are a number of spreadsheets all stacked up next to each other. This means that you can have a spreadsheet that can take into account three elements – age, weight and height for example – in a single cell as opposed to the usual two.

This may sound like the high powered domain of company accounts, but Microdeal has produced a very creditable 3-D Spreadsheet for the Atari ST which costs less than £30. Called 3-D Calc Spreadsheet, it is far from a graphical masterpiece and hardly features the most astounding range of features you are ever likely to see, but in terms of power and functionality it is more than ample for the needs of most unfussy home users or small businesses.

## LOADSACCELLS

The copy we reviewed was a pre-release version which was a bit buggy but still performed effectively. The main problem was that, despite what the packaging states, there was no way we could make it run in colour.

Each spreadsheet contains 2,048 rows by 256



• Although it is very cheap, 3-D Calc Spreadsheet has some graphical capabilities and can produce pie, line and bar graphs

columns of cells which should be enough for most home users' needs – a season of amateur cricket scores or a year's worth of bank domestic accounts should fit on quite comfortably. And with the ability to link up to 13 spreadsheet pages to form a 3-D grid, there is room for an awful lot of information. 3-D Calc Spreadsheet can also hold up to three spreadsheets in its memory simultaneously.

Entering data into a cell is fairly straightforward. Each cell has a name comprising three elements. The first is the spreadsheet page number. If you are only working on a 2-D grid then this is irrelevant, but a 3-D grid will label the top spreadsheet '12', the next '11', the one after that '2' and so on, up to a maximum of value of 12. The second element is the column name, and the third is the row number. So, for example, B93 would be the third sheet back, the second column along, fourth cell down (the first sheets and rows are always '1').

So you enter the name of your desired cell, then type in your data, press a cursor key and hey presto! Unfortunately, entering the formulas to add up a column or find the average of a row, for example, is far more complex, but more on that later.

they will be upgrading at some point. And at under £30, it is still quite good value for money.

The accessories disk contains a number of utilities, such as ones to transfer files to and from other spreadsheets such as Lotus 1-2-3, and a number of demo files which are invaluable when trying to learn how to use the software.

At the price, which is very cheap, 3-D Calc Spreadsheet is very good value for money, offering a wide range of features and competent graphical capabilities. Unfortunately, it is let down by a rather clumsy and difficult operating system which would be very frustrating for first time spreadsheet users.



Producing graphs is also fairly straightforward. You have a choice of pie, line or bar graphs, and you enter the data by dragging the mouse over the relevant rows or columns. The main program can also produce line or bar graphs showing multiple ranges so that, for example, you can compare two different basket averages.

Another major bonus is that 3-D Calc Spreadsheet is compatible with other major spreadsheets, including the mighty Lotus 1-2-3 and Symphony.

This means that data from Lotus spreadsheets can be imported on 3-D Calc spreadsheets and vice versa. This is especially useful for people who use spreadsheets at work and need to take their work home.

## DRAWBACKS

However, two major, and interconnected, points really let the program down. Basically, it is very difficult to learn and use unless you have had experience of spreadsheets before. The program itself is hardly user-friendly – there is not even an on-line help facility – and the manual seems to take it for granted that the user is as well with spreadsheet concepts.

This is especially annoying if you are trying to set up your own spreadsheets when you haven't a clue how to tell a cell that it should add up all the values in row four and multiply them with the total of the values in column c. The clues are in the manual, but they are extremely difficult to find.

This is a big shame because the price of 3-D Calc Spreadsheet will be very appealing to first time users, but they may well be put off by what a difficult piece of software it is to use.

The screenshot shows the 3-D Calc Spreadsheet interface with a table of data. The table has columns labeled 'Name', 'Age', 'Weight', 'Height', and 'Total'. The rows contain data for various individuals. The interface includes a menu bar at the top and a toolbar below it.

Name	Age	Weight	Height	Total
1 January	25	65	175	265
2 February	25	65	175	265
3 March	25	65	175	265
4 April	25	65	175	265
5 May	25	65	175	265
6 June	25	65	175	265
7 July	25	65	175	265
8 August	25	65	175	265
9 September	25	65	175	265
10 October	25	65	175	265

• The program can hold up to three different spreadsheets, each containing up to 6,815,744 individual cells

## VERDICT BOX

### FOR

- ▲ A very attractive price
- ▲ Powerful features
- ▲ Lotus 1-2-3 and Symphony compatible

### AGAINST

- ▼ Difficult to learn or use

COST: £29.95  
 VALUE: Super

### COMPETITION

No others that can offer the same functions at the same price

## SON OF SPREADSHEET AND ACCESSORIES

The 3-D Calc Spreadsheet package comes with three disks: the main program disk (as covered in the main text), the Junk disk and an accessories disk.

The Junker disk is a cut down version of the main program for bulk megabyte STs which can produce one basic 3000x256 cell 3-D spreadsheet in a time. It can also generate simple graphs showing the relationship between two sets of values. There are also other limitations in terms of features.

While it is a fairly competent spreadsheet program in itself, though fairly limited, its inclusion in this package is odd. Maybe the idea is to encourage half megabyte ST owners to buy the package in the hope that



## STAR RATINGS

- ★★★★ = Total Recall
- ★★★★ = Terminator
- ★★★★ = Predator
- ★★★ = Pumping Iron
- ★ = The Jayne Mansfield Story

## FALLING IN LOVE

Some of our older readers may remember the heyday of the 8-bits. Way back then, when dinosaurs (the VIC-20, the ZX81, the Electron) still walked the Earth, there was a game called **Head Over Heels**, an isometric-3D puzzle-adventure in the mould of the legendary Knight Lore. An absolutely wonderful piece of software, it took its genre to the limits, and quickly became one of the most-played games ever.

Since the rise to prominence of the 16-bits, there have been rumours of an impending conversion, but only now has it finally happened. Cowan's programmers have finally almost completed the ST and Amiga ports, and the Manchester giant is, admirably, releasing the game straight on to its



• **Head Over Heels**  
— simply one of the best games  
you're likely to play

£7.99 Hit Squad label.

Nothing much has changed from the original versions, the graphics, sound and map layouts are all the same as before, and my sentimental old heart would like to think that **Head Over Heels** is set to enjoy a whole new lease of life, as 16-bit gamers discover what things used to be like in the days when you couldn't bury tedious games beneath a mountain of pretty graphics and samples in order to make them sell.

Much more than just another nostalgia trip, **Head Over Heels** is simply one of the best games you're ever likely to play. Start camping outside your favourite software shop today.

## ALL TOGETHER NOW

Blimey, it must have been at least six weeks since Ocamk released a

compilation. Surely it's time for another crowd? And sure enough, a quick peak at the release schedules show that right about now you should be able to find on the shelves not one, not three, but two collections of 'classics' all bunged into one box for your composite gaming pleasure.

Grandstand is a sports set, comprising *Pro Tennis Tour*, *Leaderboard and Continental Circus*, with *Gazza's Super Soccer* taking the filler position. *Virtual Worlds* contains three re-released Freescape games (*Driver*, *Total Eclipse* and *Castle Master*) along with one unreleased Freescape game, the *Castle Master*

follow-up *The Crypt*. Prices are £29.99 for the 16-bit packs and £14.99 for the 8-bit versions.

## HERE IT COMES AGAIN

'Y'know, dear hearts, I simply couldn't count the number of people who've come up to me and said, 'Start, I'm completely bored with playing the same tedious old shoot-'em-up/beat-'em-up/light sim games week in, week out. Why can't software houses release something just a little bit different every once in a while?'

That's probably only because I can't count past five, but in any case what I always say to people like that is 'Ah, but

TOP 10  
ALL FORMATS CHART

WEEK	LAST WEEK	THIS WEEK	PUBLISHER	SCORE
1	1	Man United Europe	Krisalis	SP CO AM ST AG
2	2	Hero Quest	Grimm Graphics	SP CO AM ST AG
3	3	NERainbow Collection	Ocean	SP AM ST AG
4	3	Dizzy Collection	Code Masters	SP CO AM
5	4	Teenage Mutant Hero Turtle	Code Masters	SP CO AM ST AG
6	12	F15 Strike Eagle 2	Microprose	ST AG
7	7	Monkey Island	US Gold	ST AG
8	28	Shadow Dancer	US Gold	SP CO AM ST AG
9	10	Big Box	Beas Jolly	SP CO AM ST AG
10	15	Supremacy	Virgin	CO ST AG

ST = Amstrad ST AG = Commodore Amiga PC = IBM PC or compatible SP = Spectrum CO = Commodore 64 AM = Amstrad AM1 or Other

Chart compiled by Gallup. © European Leisure Software Publishers Association

## TOKI

Ocean

## AMIGA

If you're an 'infinite credits' kind of mood, and you also can't be bothered with all that tedious mucking around with having to play through one level in order to get to the next one, then take your head out of the oven, put the shotgun and razor blades down and turn the car engine off, because help is at hand. If you simply type in the word **VOLLER** while playing the game, those self-same infinite credits will be yours to squander at will, and pressing the F1 to F8 keys will allow you to select levels (or even the end sequence). What more could you wish for? A bit of zanyness, maybe? Okay then, simply hit the 'Y' key to flip the screen upside down, for an interesting extra element of challenge. If your eyes go fuzzy after a while, just hit 'W' and everything (well, the TGI screen, anyway) will be back to normal.

## ST

What's that, ST owners? You say you want to be able to cheat at Toki too? Well, that's all right, 'cos I've got the magic word for that as well. If you hit 'Esc' while on the intro sequence, then type **POOHTOKI**, then you should find that you're now also endowed with levelability, at a touch of the F1 to F8 keys.

## BEG, BORROW AND BURN

## BEG

MEGA-LO-MANIA - BUGENWORKS



"I don't think it's nice, you laughin'..."

Described by some as 'Popular with laughs', Mega-Lo-Mania manages to rise above both its obvious origins and the ridiculous hyperbending of its title to prove a maddeningly addictive god sim which doesn't have to take itself seriously to be a seriously great game. Extremely tough, but enormously rewarding, Mega-Lo-Mania treads the fine line between compulsion and frustration perfectly.

## BORROW

THE SIMPSONS - OCEAN

OK, so you don't actually have much option with this one, as the only other way of getting a copy is to go and fork out £400 on the

new Amiga Classics pack. But if you've got a new Amiga-owning chair, you can have some pretty excellent fun with this surprisingly good Bart loon. Ocean has pulled its socks up a bit after a recent poor run and produced a game which, while by no means stunning, is just a little bit more intelligent and entertaining than most of us had been expecting.



'Oh, aliens, up yours!'

## BURN

METAL MUTANT - SIMULMARS/PALACE

Everybody likes it, I don't care. This tedious scrolling beat-'em-up is slow, repetitive, unimaginative, incredibly shallow, unpleasant to control and generally unimpressive at best in every area. Screen after screen of the same old yawn-inducing baddy-thumping action sends you into a stupor quicker than snoring Perceps, and if you're the kind of person who's likely to buy it, please stop now. Or preferably just kill yourself.

they have. Why, you only have to look at some of the great re-releases currently resting on the shelves of your local software emporium to see that it's true."

At this point they inevitably say, "Tell me more, Stuart", which is why, to save myself some time, I've decided that this week I'll be taking a retrospective kind of look at some games which are just a little... OFF THE WALL.

**TOOBIN** • Hasagun • £7.99 16-bits  
• The HR Squid • £3.99 8-bits



**Toobin** brings you the dubious pleasure of sailing down an alligator-infested river in an old tynx inner tube with your backside hanging out of the hole in the middle. The pneumatic nature of your transport makes you prone to all sorts of inflatable-rupturing dangers, including sharp rocks and fishermen's hooks, which you have to avoid by paddling away or throwing Coke tins at them.

So far so pleasantly wacky, but when you come to the gameplay it all falls apart quicker than a Winky Lada.

Control is sluggish, imprecise and

unnatural and the different levels change only in terms of scenery. You don't really feel that you've got much influence over the watery gonga or, and despite being (on all formats) a pretty decent conversion of the coin-op, in most respects, **Toobin** was simply never much of a game in the first place. ★

**NORTH & SOUTH** • Action Sixteen  
• £7.99 16-bits.

The French wargame is a very rare breed on these shores ("What shores?" Oh, a triple vodka and Drambule for me, thanks), indeed as far as I know it's a breed with only one member.

**North & South** is a game set in the American Civil War and lets you control either side in an attempt to capture the whole country, by means of simplistic board-game-style battling, supplemented by optional arcade sequences.

The major strong point of the game is the beautiful, funny presentation, and indeed if you choose not to bother with the arcade sub-games the gameplay is very nice indeed, but all the same this is a fast-moving and entertaining game that'll bring more to the odd chuckle to the much wiser of gamers' faces. ★ ★ ★

**ZANY GOLF** • Electronic Arts  
• £9.99 16-bits only

This is more like it, though. Crazy golf has always been one of the more inventive pseudo-sports around, and this computer version does a surprisingly good job of capturing the essential feel of

the real thing. In fact, stick a big fan beside you while you're playing and get a friend to chuck some sand in its general direction, and you'll be hard pushed to tell that you're not really on the promenade at Southport at all.

**Zany Golf** also takes advantage of the medium to produce holes which would be impossible in real life, put it perfectly into the spirit of the genuine article. Play – for up to four players – is intuitive and slick, and apart from having a few more holes than the rather limited nine supplied, you couldn't really ask for more from this game.

More enjoyable as a one-player game than most others of this ilk, **Zany Golf** nonetheless really comes into its own when you get a few pals in, and in that mode it's a classic. ★ ★ ★ ★

## HATSTAND CORNER

Liverpool software giants Progress suffered a disappointment earlier this year when their Amiga blockbuster **Shadow Of The Beast II** was banned in 23 American states after pressure from the powerful fundamentalist lobby who demanded that it be withdrawn lest it "glorify overtones" of the nation's impressionable youth. When asked for a reaction, a Progress spokesman denied the accusations vehemently, adding "it was a very like 'died at dog', but to me, and the game subsequently flopped.

## TOP 10 ALL FORMATS BUDGET

NO.	NAME	YEAR	GENRE	ARTIST
1	2	Shinobi	Maseteronic	SP CO AM ST AG
1	Bubble Bubble	HI Squad	SP CO AM ST AG	
3	Magic Land Dizzy	Codemasters	SP CO AM	
4	Devile Dragon	Maseteronic	SP CO AM ST AG	
5	Fantasy World Dizzy	Codemasters	ST AG AC	
6	Dragon Ninja	HI Squad	SP CO AM ST AG	
7	Super Football	Miner Image	ST AG	
11	Unleashed	HI Squad	SP CO AM ST AG	
8	Quartz Carillon	Codemasters	SP CO AM	
10	The Games - Summer Edition			
	Klax		SP CO AM ST AG	

# "WHAT!!! PC TOWER SYSTEMS from only £399 + VAT"

**"YES!!!"**

Vanitec Data  
Services Ltd can  
offer a complete  
range of IBM  
compatible  
computers  
from £399  
+ VAT and can  
include 1 years on  
site maintenance  
and hardware  
installation by our  
own engineering  
team



All our systems  
are fully IBM  
compatible and  
completely  
upgradeable  
throughout the  
whole pc range.  
phone

**NOW**

*Vanitec*  
DATA SERVICES LTD



**YES!!! Vanitec Data  
Services Ltd**



● TEL: 0249 448 777 ●  
● FAX: 0249 448 765 ●

# SMALL IS BEAUTIFUL

**PRODUCT:** Philips PCL 203 Notebook  
**COMPATIBILITY:** PC  
**FROM:** Philips  
**CONTACT:** 081-689 2166

**T**here is a subtle difference between laptop and notebook computers. While they are both portable machines, notebooks are smaller yet manage to have just as many features as their larger cousins. Basically, if a machine can fit inside a briefcase, it is regarded as a notebook. A laptop, on the other hand, would be carried on its own.

Philips' PCL 203 is an AT-compatible notebook, equipped with a 12MHz 80286 processor and 1Mb of RAM. The memory can be expanded to 8Mb on board which is quite a feat for a computer this small.

And Philips' notebook is very small. It measures only 220 by 280 by 52 millimetres, which is less than the size of an A4 page. In this space a lot of hardware has been included. To start with, there is a 1.44Mb 3.5-inch floppy drive and a 20Mb hard drive.

Also, there are serial and parallel ports, cut plugs for a PS/2 mouse and an external keyboard, as well as a video port for connecting the machine to an external monitor. The serial port is only a 9-pin connector instead of the more standard 25-pin, so a different cable or an adapter is needed to use peripherals which have a 25-pin connector. A box can be connected to the machine to provide some XT or AT compatible slots.

## ON DISPLAY

There are numerous display options as the PCL 203 has a VGA backlit liquid crystal display (LCD) screen which can not only display VGA, but also MGA, Hercules, CGA and EGA graphics. The screen gives a clear and stable display in all sorts of lighting conditions, although, like other LCD screens, the speed of some games means the display often becomes blurred.

The PCL 203's full-travel, tactile keyboard has 80 keys which can emulate the 101 or 102-key versions of larger desktop computers. It has an embedded numeric keypad which uses keys in the central part of the keyboard for numerals.

Usually, the keyboard also controls the hardware; other laptops and notebooks use standard knobs. By using the 'Fn' key the keyboard can adjust the brightness and contrast of the screen, or whether the machine is outputting to its own or an external monitor. While doing these functions with a keyboard is a bit of an inconvenience, it does mean that the settings can't be changed accidentally.

## BATTERY RAM

One important feature which determines the usefulness of a portable computer is how long the battery lasts. The PCL 203 can last for over three hours on its rechargeable battery, which is a reasonable length of time compared to other machines. When the battery comes to the end of its charged life, the power light starts flashing and a regular beep is emitted as a warning that data should be saved.

To help conserve what power the machine does have there are a number of built-in features. If the hard drive hasn't been accessed for two minutes, then it will shut itself down until it is accessed again. Also, the computer can be put in standby mode so if it isn't used for five minutes everything is shut down - the backlit screen is turned off and the two drives are put on standby until they are used again.

If you close the screen over the machine to carry it somewhere, for example, but forget to turn it off, then it will keep to remind you that it is still on. The 12MHz processor can also be slowed down to 6MHz to save battery power when processing power is not needed.

Recharging the battery back to full power takes around two hours. The device that charges the battery can also supply mains power to the notebook when it is not being used in a portable capacity.

## The memory can be expanded to 8Mb on board which is quite a feat for a computer this small

Another important consideration when choosing a portable machine is how much it weighs. For its size the PCL 203 weighs quite a lot: some three kilograms. This weight can be attributed to the notebook's case which is very thick and solid. A carrying case is supplied, but apart from protecting the machine it doesn't make it any easier to carry as it has no handle.

## BUNDLING ALONG

The Philips PCL 203 is bundled with a variety of software. MS-DOS version 4.01 and QW BASIC are standard fare when it comes to bundled PC software, but Microsoft Works 2.0 and Fastfly file transfer software are also included. The inclusion of Works means that the notebook can immediately be used for something useful. Works is an integrated software package which includes word processing, spreadsheet/database and communications facilities.

Software for setting up the machine is built-in. This is basically a menu screen that controls its functions.

## VITAL STATISTICS

**Processor:** 80286 (12MHz)  
**RAM:** 1Mb standard, expandable to 8Mb  
**Storage:** Single 3.5 inch, 1.44Mb floppy drive; 20Mb hard drive (20 millisecond access time)  
**IO:** 1 Serial, 1 Parallel, video, PS/2 mouse, external keyboard  
**Display:** Backlit VGA LCD display, 640 x 480 pixels  
**Screen size:** 224 x 98 mm  
**Weight:** 3 kg  
**Dimensions:** 220 x 280 x 52 mm

## PHILIPS PCL 203

Notebook computers may be just as powerful as desktop machines, but how much should their added portability cost?

Tim Howell slides the Philips PCL 203 into his briefcase to find out if this new notebook offers good value for money



• A powerful package — Philips' PCL 203 Notebook can last for over three hours on its rechargeable battery

including which serial ports are active, setting the clock, and determining how long the machine should wait before it shuts down. This not only makes it easy to customise the settings, but it also shows how the machine is set up, making it easier to locate problems should they occur.

## MONEY MATTERS

The Philips PCL 203 retails for £1,600 which is a large sum of money. Compared to other machines on the market — both laptops and notebooks — this price puts it near the top end of the market, making it even more expensive than machines equipped with 386SX processors (such as the Ness, reviewed in Express 141). The PCL 203 is made by a company with a good reputation, but to pay such a premium for a brand name on a less powerful machine calls for some careful consideration. Individual dealers might sell the PCL 203 for less than its recommended price, but then they'd do the same for most machines.

All in all, the Philips PCL 203 is an attractive machine which offers almost all the features of a desktop machine in a package smaller than an A4 page. These come at a price, though, and potential purchasers would do well to shop around if they are interested in the machine. ■

## MAKE A NOTE OF IT

- FOR**
- ▲ Small size
  - ▲ Well-designed
  - ▲ Good power-saving features
  - ▲ Useful software bundled

## AGAINST

- ▼ Heavy for its size
- ▼ Quite expensive compared to others

**VALUE:** Good **COST:** £1,600

**COMPETITION:** Toshiba, Ness and Sharp

## COMPUTER FRAUD

## OF CORPORATE

The fact that computers are now such a prevalent part of everyday commerce means that, as with any other area of life, opportunities exist for dishonest advantage. While some stories of hacking, viruses and large scale bank frauds frequently make the headlines, the true level of computer crime is difficult to gauge. Part of the problem is actually coming by the reliable statistics required to form a clear picture of the extent of abuse.

But every three years now for the past decade, The Audit Commission, an independent body formed to provide economic advice to local authorities, has conducted a survey of computer fraud across the UK.

For the purposes of ascertaining the only reliable survey of its kind, the commission defines computer fraud as any fraudulent behaviour connected with compensation by which someone intends to gain dishonest advantage. Within this wide net it attempts to catch incidents of fraud, theft, hacking and virus attacks.

By taking such a broad view, a wide sample of offences can be included because whether a computer is involved is less important than the knowledge that the computer's involvement may have introduced an additional risk of financial loss. The 1990 survey was the first to be conducted in this country and the first to include virus attacks. The last one, in 1987, covered hacking for the first time.

## DEFINITION OF FRAUDULENT

Because both hacking and viruses may not be fraudulent or designed to gain dishonest advantage, the current survey has had to widen its definitions. Fraud has been further defined as the unauthorised alteration of input, computer data and programs and the destruction, suppression or misappropriation of output from a computer process (whether paper or screen based). Theft incorporates the loss of data and software as well as the use of illicit copies of programs and unauthorised private work on company systems.

Hacking is defined as deliberately gaining unauthorised access to a computer system through the use of communication facilities and/or sabotaging the computer process by causing deliberate damage to the processing cycle or equipment. Viruses are simply notified as a program distributed with the intention of corrupting a computer process.

Over 1,500 private and public sector organisations respond to the call for reports of incidents of fraud and abuse, and this year a total direct loss of over £1 million was reported. But is this figure of any real consequence? After all, these days £1 million is not a lot of money and in all probability such a figure could easily be written off within the normal contingency loss

**Hacking OUT, Viruses IN, ran the headline in Express' recent investigation into computer fraud and abuse. But what other facets of fraud are on the increase? Stuart Clarke investigates...**

budgets of the 1,500 companies concerned. Looked at in this light, an average loss of £667 per company is, for want of a better expression, peanuts.

However, there are a couple of major points to bear in mind here. Firstly, the Audit Commission's survey does not purport to be definitive list of UK computer fraud and abuse incidents, rather it provides an indication of the nature of the risks which organisations face when depending on computers to support their business activities.

**The 1991 report showed that over a third of all frauds were committed by directors, managers and supervisors!**

Another reason the figures seem to be low in comparison to alarmist media claims of the billions lost to fraud is that the commission's survey doesn't include losses due to natural acts such as human error, accidental damage, fire and floods. When asked whether such natural hazards posed a greater risk than deliberate acts such as fraud, theft, hacking and viruses, over 80 per cent replied that accidental acts posed a greater threat.

Secondly, this figure of a £667 loss per company assumes an equal distribution of loss. In fact after ignoring incidents where financial losses were not reported, the average loss suffered was around £17,500.

So besides being compounded by the fact that not all cases will have been reported, some will have remained undetected, some mistaken for natural loss and some covered up for fear of embarrassment. All these factors tend to underestimate the scale of the problem. So perhaps the monetary value of computer crime is not the best yardstick of the problem across

such a small sample of UK companies.

If we look at the number of instances – 180 – then the figure becomes more significant. We are looking at a situation wherein one in eight companies are the victims of fraud, theft, hacking and virus attacks. Also of interest is the fact that only 23 per cent of the four types of deliberate acts of abuse focussed on were brought to light through internal control procedures. The vast majority of cases were unearthed via tip-offs from outsiders and through the perpetrators confessing. In addition, viruses were found to be an increasingly prevalent form of abuse with 30 per cent of the total number of cases being attributed to viral code introduced into systems. Fifty-four virus attacks were reported, as opposed to 73 cases of fraud, 27 instances of theft and 26 of hacking.

## SUFFERING THE SCAM

As might be expected, most reported instances of computer crime were found to be targeted at local government and financial institutions. In fact, half of all incidents impact in these areas. Understandably, it is these corporate victims which are most reluctant to reveal details of the fraud suffered.

Traditionally, most fraud comprised the unauthorised alteration of data prior to input into a computer along with the alteration of data once in the system. However, the most recent survey reveals that it is destruction or misappropriation of hard copy that now represents a significantly larger share. Why should this be? Ironically, one can only surmise that such a change is because of greater system safeguards.

## FRAUD BEGINS AT HOME

Most frauds are still being perpetrated through the submission of falsified invoices and claims along with the alteration of computerised payment data. As such, this low-value fraud is not determined by the technology and can only be termed 'computer crime' in so far as a computer figure somewhere within the fraud trail.

Fraud at the inputting stage comes into its own in cases where individuals create fictitious diamonds' records and have payments made through an automated payments system direct to a bank account. Most fraud occurs in those on-line areas of computer systems where phone connection enables remote access and remote payments. Whereas 70 per cent of fraud can be accounted for in this way, less than one in five cases can be attributed to stand-alone microcomputer systems.

Safeguarding on-line access is the key to security. Interestingly, a third of all such cases occur in systems developed by a company's own IT department, not in systems developed by external consultants: thus underlining the fact that most fraud and abuse is instigated by a company's own employees. And indeed, it needn't be those on the lower rungs of the ladder.

The 1991 report showed that over a third of all frauds were committed by directors, managers and supervisors! From the point of view of employees, the most worrying fact about all this is that internal control mechanisms – systems checks, passwords, logging and monitoring – were only successful in discovering less than quarter of all misuse. Discovery by accident accounted for 60 per cent of all detections, but flying in

## POST HELD BY PERPETRATORS

Others



Clerical Staff

Management

• Thirty five per cent of frauds were commissioned by managers and supervisors. Of those who committed frauds, 90 per cent had held their posts for two years or more

# CONFESSIONS...

## ANALYSIS OF INCIDENTS BY VALUE AND TYPE

	1990		1987		1984	
	CASES	LOSS	CASES	LOSS	CASES	LOSS
FRAUDS	73	£1,102,842	62	£2,526,751	60	£1,131,186
THEFT	27	£1,000	22	£34,500	17	£2,301
HACKING	26	£31,590	35	£100		
VIRUSES	54	£5,000				
	180	£1,140,142	119	£2,561,351	77	£1,133,487

the face of the common myth that fraudsters get off scot free by helping security personnel close loopholes, the survey also showed that three-quarters of miscreants are prosecuted under the Theft Act and dismissed.

### THE NEW THIEF

The 1991 survey was the first to include the category of 'use of illicit software', introduced in an attempt to determine the extent of illicit copying of software. The Federation Against Software Theft (FAST) estimates that the level of loss to the software industry is currently running at around £270 million and that over half the senior managers who use microcomputers at work copy software illegally.

## Over half of senior managers who use microcomputers at work copy illegal software

Of the 27 cases of theft, only seven involved the use of copied software – though given the scale of the problem as outlined by FAST plus the fact that senior managers are likely to be the persons who return the survey questionnaires, this low percentage is perhaps only to be expected.

Most theft continues to involve sensitive data which is sold to the commercial opposition. Given that copies of such data can be made easily, the extent of the

problem is difficult to ascertain. However, it seems that corporations are less likely to take tough measures against perpetrators when it comes to theft, private work on company systems and the use of illicit software. More than half the transgressions were met with cautions or no action at all.

### THE DEMISE OF HACKING?

It's too early to tell whether the introduction of the 1990 Computer Misuse Act is having any significant counter-effect on incidents of hacking, but the results of the audit commission's survey do show a downturn in hacking as the prime form of computer misuse and abuse. When respondents to the survey were asked how they ranked the relative importance of each type of deliberate computer misuse, hacking finished bottom of the list. But this downgrading of the threat of hacking could have led to a lower detection level. If managers do not feel threatened by the activity they are less likely to look out for it.

Of the few cases which were reported over half were perpetrated by persons unknown. Most hackers lasted for a period of less than five days and Payroll, Personal Accounts, and Stocktaking were the most popular targets. Ironically though, the costs of detection can outweigh the costs of the theft. One company lost £20,000 to a successful hack, but spent £33,000 detecting it.

### THE GROWTH OF THE VIRUS

Viral attacks accounted for 30 per cent of the reported cases in the 1991 survey, a figure which is perhaps not too surprising given that the Audit Commission estimates there are now over 350 different varieties of computer virus at large. However, in 1990 the well-

reported AIDS virus – which asked users to send monies to a Central American address in return for a password to prevent their hard disks being wiped – possibly led to an over-inflated figure. The AIDS disk was sent out to over 30,000 organisations worldwide.

Otherwise the viruses most commonly accounted were the Vienna, Jerusalem, Stoned, Italian, 4096, 1613 and Nvib strains. Only 16 of the instigators of viruses into computer systems were identified and surprisingly six of these were company directors! Why management should feature so regularly in computer misuse and abuse is anyone's guess.

While it is difficult to quantify the loss to business of viral activity, one company revealed that it had spent £15,000 detecting and reconstituting a system after a virus, which caused no damage or direct loss, was found to have penetrated security. It is apparent that with so many strains of viruses out there, no one knows for sure, just which variant they have detected and what, if anything, are the probable results of infection.

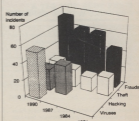
### PREVENTATIVE MEASURES

The survey sought to identify the preventative steps which could and should be taken by companies to help avoid computer fraud. Given that the greatest threats to networked systems are where passwords are not being effectively used as a means of controlling access, the commission suggested four types of security measures which should be employed:

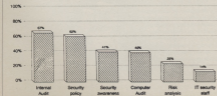
- 1) Continual risk analysis being conducted to identify areas most open to abuse.
- 2) A computer security policy which should be vigorously implemented.
- 3) All staff should receive computer awareness training which makes them aware of the risks and the precautions they must take.
- 4) An internal audit department should be set up and staff employed specifically to compile a computer security policy.

Whilst the recommendations of the 1987 report suggested that managers suffered from 'security blindness' in not appreciating the need for security measures, it is now apparent that many organisations are simply not aware of the risks that they run. ■

## ANALYSIS OF REPORTED INCIDENTS



## MOST COMMON PREVENTATIVE MEASURES



\* Few organisations had computer audit skills available

\* Frauds continue to rise

# WINNERS

COMPETITION

# ARE YOU A WINNER?

Yes! At last Express is announcing the winners of more than £9,000 worth of prizes. So if you fancy your chances, read on...

**D**id you get around to entering any of our competitions? If you didn't you're going to wish you had when you read about all the amazing prizes going out to Express competition winners.

So next time put pen to paper, get your brain in gear and answer those questions!

Next time you won't even have to wait long to hear if you've won a prize. From next week - Issue 148 - we're going to be announcing a competition winner

every week. So there's yet another reason for you to make sure that you get a copy of Express every single week, as it could be your name there in print.

All the prizes for the winners of competitions on this page will be coming directly from the manufacturer/distributor. Express will forward all the names and addresses of winners on to them.

Now on with those winners...



• Not £1,200, not £500, but FREE!

## THE ACER LP76 LASER PRINTER

The LP76 comes from UK Home Computers and is a six page a minute printer that emulates the industry standard HP Laserjet II. It can handle A4 paper and will be supplied with a toner, drum, an extra memory card and a second sheet feeder already installed.

To buy the LP76 you would have to hand over £1,200, but M Bennett of Lymington, Hants is getting one for free!

## PENTAX IMAGE SCANNER

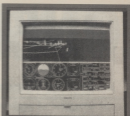
Another one worth £1,200, the Pentax Image Scanner SB-AA4301 can make desktop publishing on your PC come to life. You can enhance your artwork and turn hard copy into printable artwork.

The AA sized flatbed scanner comes with PC Paintbrush II, a suite of software which allows you to scan and edit your images, and all the cables and interfaces to connect the scanner to your PC.

And J D Anderson of Tisbury, Norfolk, is the person who will be producing DTP delights from now on!



• Desktop publishing is made easy and looks professional with the Pentax Image Scanner



• Desired by Amiga owners everywhere - Philips' CGA monitor

## PHILIPS CGA COLOUR MONITOR

J Baldwin of Blandford, Swindon will be the envy of every Amiga 500 owner out there, as he has won Philips' popular 14-inch colour CGA model (CM8033 mark II) monitor.

Well done - you've saved yourself £250



## SILICA ARCADE ACTION PACKS

Each arcade action pack contains 10 games - Onslaught, Live and Let Die, Trivial Pursuit, Slurk, Rock 'n' Roll, Driver Force, Chess Player 2195, Risk Dangerous, Pipe Mania and Asterix the Gault - and there are six of them to give away!

And the lucky winners are:

- Martin Crookston of Banbury, Hereford
- S Pryor of St Neots, Cambridgeshire
- Joseph Jagla of Thargoland, Shetland
- Peter Briggs of Blackpool, Lancashire
- Michael Pun of Birmingham
- Paul Gurnsey of Whitby, North Yorkshire

## MAKE SURE YOU GET A COPY OF NEXT WEEK'S EXPRESS

Complete this form and hand it to your newspaper

TO THE NEWSAGENT:

Please reserve me \_\_\_\_\_ copy/copies of New Computer Express every week, beginning with Issue 148, out on 24 August.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

TELEPHONE NUMBER \_\_\_\_\_ DAY \_\_\_\_\_ EVENING \_\_\_\_\_

To the newsagent: New Computer Express is published by Future Publishing and is available from your local wholesaler. Send back all your Future shop save coupons for entry in a free draw to: Kate Hodges, Future Publishing, 30 Monmouth Street, Bath BA1 2BN.

## FIRST STEPS BUNDLE FROM COMMODORE

First Steps comes from Commodore's Clasp of the 70s series and is an integrated software bundle designed to offer a learning package that takes in productivity, applications and leisure.

Included in the pack is an emulator that allows the Amiga to run BBC education software, allowing access to thousands of programs already used in schools.

The bundle includes programs for music, word processing, database applications and artwork.

Ten winners will have First Steps, worth £500, delivered to their doorsteps and they are:

- Maia Ventacholiam of Amstey, Leicestershire
- N K Taylor of Bournemouth, Dorset
- J Robinson of Portsmouth, Hants
- M Westall of Poole, Dorset
- J Milne of Alnwick, Northumberland
- Derek Thow of Newport, Gwent
- Wilton Taylor of Wokingham, Surrey



- A H Foster of Bassett, Southhampton
- P in Potts of Sidcote, Swindon
- C W Lee of Great, Birmingham

## ATARI ST

# DISCOVERY KING 520ST

## TENSTAR GAMES PACK

## ATARI

# 1040ST FAMILY CURRICULUM PACK

The Family Curriculum Pack comes with a 1040ST-E computer and mouse plus 5 software modules (3 titles in each), one for every age range. The combination of education, creative and business software from Atari, plus the FREE entertainment and productivity packs from Silica, makes for a package the whole family can enjoy!

**PLUS FREE HOLIDAY ACCOM**

1040 520ST-E MOUSE	£209.99
PLAY & LEARN	£129.99
JUNIOR SCHOOL	£104.99
CD-ROM REVISION	£104.99
BUSINESS COMPUTING	£104.99
CREATIVE COMPUTING	£104.99
<b>PLUS! FREE FROM SILICA</b>	
1040ST-FM PRODUCTIVITY PACK	£119.99
<b>TOTAL VALUE</b>	<b>£789.99</b>
<b>YOU SAVE: £811.23</b>	

**£399**

SILICA PRICE: INC. VAT + FREE DELIVERY

# ATARI ST

## 520ST-E DISCOVERY XTRA PACK

**RETURN THE COUPON FOR A FREE! COLOUR CATALOGUE**

<b>HARDWARE:</b>	<b>£229.99</b>
520ST-E + MOUSE	
<b>ENTERTAINMENT SOFTWARE:</b>	
Asterix - By Coktel Vision	£24.99
Chess Player 2150 - By GP Software	£24.99
OSCARA 2150S - Apple Arts	£19.99
SUPER CYCLE - Hasing Games	£19.99
<b>PRODUCTIVITY SOFTWARE:</b>	<b>FREE</b>
CONTROL-ACC - Atari Software	
EMULACOR ACC - Coktel Software	
FAST BASIC - Programming	
NO COMPASS - Art Packager	
OF YOUR - Sound	
<b>JOYSTICK CONTROLLER:</b>	<b>£4.99</b>
Atari Game Joystick	
<b>PLUS! FREE FROM SILICA:</b>	
1040ST-FM PRODUCTIVITY PACK	£119.99
<b>TOTAL VALUE</b>	<b>£584.99</b>
<b>SILICA: £329</b>	

**PLUS! FREE HOLIDAY ACCOMMODATION**

## ATARI 520ST-FM DISCOVERY PACK

# £279

INC. VAT + FREE DELIVERY + FREE TENSTAR & PRODUCTIVITY PACKS

# ATARI ST - MORE THAN JUST GREAT GAMES!

# FREE! FROM EVERY ATARI ST

## TENSTAR GAMES PACK

The TenStar Games Pack is THE software compendium for Atari ST owners, featuring ten top titles with a variety of different types of games for you to enjoy. Each title is packaged in its own plastic case, with a colour sleeve and full instructions. The TenStar Games Pack is FREE! when you buy your ST from Silica Systems.

**FREE! WORTH: £219.78**

## TENSTAR GAMES PACK

## TOTAL FREE PACKAGE

<b>TENSTAR GAMES PACK - £219.78:</b>	
Asterix - By Coktel Vision	£24.99
Chess Player 2150 - By GP Software	£24.99
Driver Force - By Digital Magic	£19.99
Live & Let Die - By Elite	£19.99
Onslaught - By Hewson	£19.99
Pipe Mania - By Empire Software	£24.99
Rick Dangerous - By Firebird	£24.99
Rock 'n' Roll - By Rainbow Arts	£19.99
Skewalek - By US Gold	£19.99
Trivial Pursuit - By Domark	£19.99
<b>PRODUCTIVITY PACK - £104.97:</b>	
1st Word - Word Processor	£59.99
Spell It - Spell Checker	£19.99
ST BASIC - Programming Language	£24.99
<b>TOTAL RRP: £324.75</b>	

## FREE! SILICA SYSTEMS ST PRODUCTIVITY PACK

Every Atari ST from Silica comes with a FREE Silica ST Productivity Pack, worth over £100. This pack has been specially put together by Silica to help you to get to grips with the productive side of your ST. Each title has been written and selected from thousands of Atari ST owners, who have begun word processing with no time and programming with Atari ST Basic.

1st Word - Word Processor £59.99  
Spell It - Spell Checker £19.99  
ST BASIC - with Manual £24.99

**TOTAL RRP: £94.97**

## FREE! 15 NIGHTS HOLIDAY HOTEL ACCOMMODATION

Every Atari ST from Silica comes with a FREE 72 page, full colour brochure with accommodation vouchers. These vouchers entitle 2 people to stay up to 15 nights in one hotel for any number of hotels to a total of 15 nights with accommodation FREE (you could take up to six nights for four people, or other options). Choose from the 250 hotels featured in the catalogue. All you have to pay for are your meals (unless are listed in the brochure). Reduced rates in top London hotels and hotels in France are also featured.

## FREE! WORTH NEARLY! £325

**PLUS! FREE HOLIDAY ACCOMMODATION**

## SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.
- **TECHNICAL SUPPORT HELPLINE:** Team of Atari technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available for large prices.
- **SHOWROOM:** Demonstration and training facilities at our London & Salsbury branches.
- **THE FULL STOCK RANGE:** All of your Atari requirements have our supply.
- **FREE CATALOGUES:** Will be mailed to you with offers and software/unlimited details.
- **PAYMENT:** By cash, cheque and all major credit cards.

Before you decide when to buy your new Atari ST computer, we suggest you think very carefully about where you buy it. Consider what it will do like a few months after buying your ST when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from send you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free brochure and begin to experience the "Silica Systems" Service.

**MAIL ORDER:**  
Silica, Lincs. Dept. 100, 1st Floor, 1-4 The Mews, Hatfield Rd., Salsbury, Wilt., BA14 4XZ. Tel. 081-309 9111  
Fax: 081-309 9100

**LONDON SHOP:**  
100-101 St. James's Place, London, W1P 0BA. Tel. 071-580 4800  
Fax: 071-580 4801

**LONDON SELF-SERVICE:**  
100-101 St. James's Place, London, W1P 0BA. Tel. 071-580 4800  
Fax: 071-580 4801

**GROUP SHOP:**  
100-101 St. James's Place, London, W1P 0BA. Tel. 071-580 4800  
Fax: 071-580 4801

To: Silica Systems, Dept. NCE-081-43 1-4 The Mews, Hatfield Rd., Salsbury, Wilt., BA14 4XZ

**PLEASE SEND FREE ATARI COLOUR CATALOGUE**

Name: \_\_\_\_\_ Initials: \_\_\_\_\_ Surname: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_ Tel: \_\_\_\_\_

Which computer(s), if any, do you own? \_\_\_\_\_

**MAIL ORDER HOTLINE 081-309 1111**

**SILICA SYSTEMS**

# MITAC XT 20MB PRICE BLITZ

(ALL ITEMS ARE BRAND NEW AND CARRY FULL MANUFACTURERS WARRANTY)

**YOU GET ALL THIS FOR £299 +VAT**



8088 10MHZ FAST PROCESSOR • 20MB IDE FAST HARD DISK  
DRIVE • 640K RAM • 32KB ROM • MITAC QUALITY  
MANUFACTURING • ON BOARD HERCULES AND COLOUR CGA  
3.5" 720K FLOPPY DISK DRIVE • LATEST SLIMLINE CASE  
101 KEY KEYBOARD • SLOT FOR 8087 • CLOCK/CAL/ETC  
PHOENIX BIOS • 2 FULL LENGTH XT SLOTS  
SERIAL PORT 9 PIN • PARALLEL PORT  
EXTERNAL 5.25" FLOPPY PORT • MS-DOS 4.04 AND MANUALS  
USER MANUALS • ROOM FOR ADDITIONAL 3.5" FLOPPY  
BIOS SUPPORTS HIGH DENSITY DRIVES • 12 MONTH GUARANTEE  
ALL GOODS ARE BRAND NEW

**ONLY  
£299**

+VAT AND DELIVERY

NOTE: The above systems are supplied absolutely complete down to the 13A plug  
with the exception of a monitor. These are listed below.

## OPTIONS

12" PHILIPS GREEN MONITOR	£49.00 + VAT
14" TANDON GREEN OR AMBER	£69.00 + VAT
14" MITAC CGA/EGA COLOUR	£149.00 + VAT
14" COLOUR VGA OPTION	£199.00 + VAT
(The VGA option is complete with VGA adaptor card, the Hercules / CGA options can use the on board adaptor)	
MOUSE	£19.00 + VAT
DELIVERY (UK MAIN)	£10.00 + VAT
12 MONTHS ON SITE G/TEE	£29.00 + VAT

**MICROSAVE  
SYSTEMS  
021 706 9748**

24 RICHMOND ROAD,  
OLTON, SOLIHULL,  
WEST MIDLANDS  
B92 7RP

(CALLERS SEEN BY  
APPOINTMENT ONLY)

ACCESS VISA TAKEN

# NEW AGE COMPUTING

## AMIGA DEALS

Where stated our exclusive New Age pack contains, on top of the standard packs:

- A free mouse mat
- A disk head cleaning kit
- 15 professionally packed Public Domain disks
- A complimentary issue of Computer LYNX magazine, giving you extra insight in the new world of AMIGA computing!

BASE A500 512K + New Age Pack	£319.95
BASE A500 512K BARE	£309.95
BASE A500 1 Meg + New Age Pack	£344.95
BASE A500 1 Meg BARE	£334.95
A500 1 Meg Screen Gems + Pack	£365.00
A500 1 Meg Screen Gems	£355.00
A500 1 Meg Cartier Classics + Pack	£375.00
A500 1 Meg Cartier Classics	£365.00
A1500 BASE Machine + New Age Pack	£675.00
A1500/10445 Stereo Monitor + Pack	£919.95

## HARD DRIVE OPTIONS

### A1500/2000

GVP or XETEC SCSI HD controller with  
8 meg RAM upgrade option on board.  
NEXUS cards out now - add just £20 to total!

Card (5K) - please state GVP/Xetec	£199.99
Card + 52 Meg hard drive	£429.95
Card + 125 Meg hard drive	£581.25
Card + 170 Meg hard drive	£787.95

2 Megabyte RAM (only with drive)	£79.00
4 Megabyte RAM (only with drive)	£157.50
8 Megabyte RAM (only with drive)	£314.00

### A500

Commodore A500 controller and 2 meg ram  
upgrade option on board

A500 + 20 Meg drive (standard)	£385.95
A500 + 52 Meg Hard drive	£489.95
A500 + 105 Meg Hard drive	£645.95
A500 + 170 Meg Hard drive	£895.95

2 Megabyte RAM (only with drive)	£70.00
----------------------------------	--------

All drives and/or RAM fitted by us ready for  
you to just plug in and go!  
If you need more storage, call for a quote.

## MISCELLANEOUS

Naksha Mouse + Operation Stealth (280dpi)	£23.00
Vinyl mouse mats	£1.99
Form mouse mats	£2.99
Turbo 69000 replacement chip (7144841)	£39.00
- NB: Chip requires Revision 5.2 Amiga or above	
Thing II A4 copy holders	£3.99
Fasttrack II disk holders	£1.99
Plastic library Cases (10 disks)	£3.99
Universal Printer Stands	£8.99
3.5" disk head cleaning kit	£1.99
Mountain Breeze computer air filter	£25.00

## SOUND ENHANCER

Probably the most revolutionary  
development on the AMIGA this year!

If you thought the Amiga had good sound...  
"you ain't heard nothin' yet!"

High quality filtering techniques produce  
good sound even from the worst samples!

Requires no external power. Full on/off  
facility and controllable filtering.

You've SEEN the reviews, now HEAR for yourself

Sound Enhancer + free music disk...£34.95

## 3.5" BULK DISKS

High quality branded bulk disks  
- With full replacement guarantee -

25 disks with labels	£16.00
50 disks with labels	£29.00
100 disks with labels	£40.00
200 disks with labels	£74.00
500 disks with labels	£162.00
High density disks (each) minimum 50	£0.95

\*\*\* Order 500 disks and get 25 extra free \*\*\*

Roll of 1000 labels .....£6.99

## 3.5" DISK STORAGE

40 Capacity Lockable Box	£4.50
80 Capacity Lockable Box	£5.00
POSSO 150 capacity drawer (stackable)	£16.00
BANK 90 capacity drawer (stackable)	£5.00

\*\*\* Order any 5 boxes and get 20 disks FREE \*\*\*

## DISK DRIVES

All drives with free issue of Computer LYNX

External Slim 3.5" Drive - Throughport/Switch	£55.00
Internal A500 replacement drive	£39.50
Internal 1500/2000 2nd drive/replacement	£85.00

## A500 0.5 MEG MEMORY UPGRADE

Expansions without a disk are just  
a waste of time!

FREE ONE MEG DEMO!  
"ENIGMA" by Phenomena

A500 Memory Upgrade with clock + disk...£28.00

## DUST COVERS

Amiga 500	£4.50
Star LC-10	£5.50
Monitor (Philips or other 14")	£9.50

## PROFESSIONAL PUBLIC DOMAIN

As featured in NEW COMPUTER EXPRESS!!  
These are more than just standard disks, they come  
with proper cases and inlay/documentation  
FULL LIST OF TITLES IN OUR FREE

### CATALOGUE

1 disk:	
Noiseplayer 4 with documentation	£1.50
Ice megademo	£1.50
Pooled Pleasures (Turkian II remix)	£1.50
Silence of the Demes (various demos)	£1.50
Mystical Tunes (Classic CHIP music)	£1.50
Substance - Guardian's first demo	£1.50

2 disk:	
Blues House - Thrust game & music	£2.50
Virtual World Alfa Omega Twin Pack	£2.50

## JOYSTICKS

Zipstick + Autofire	£12.50
Competition Pro 5000	£10.50
Speed King + Autofire	£10.50
Navigator + Autofire	£13.95
Python 1 + Autofire	£9.95
Maybrick 1 Autofire	£13.95
Powerplay Cruiser	£9.95

Phone for details/prices on other joysticks

## PRINTER RIBBONS

Star LC-10	£3.00
Star LC24-1024-200	£4.50
Amstrad 9512	£2.75
Amstrad CMP 2000/3000	£3.50
Amstrad CMP 4000	£4.00
Epson MX 80/850	£3.50
Epson LX300/95	£3.00
Epson MX 100	£3.50
Epson LQ 1000	£3.75
Epson LQ 600	£3.00
Panasonic KXP 1124	£4.75
Panasonic KXP 1080/1081/1180	£4.50

\*\*\* Call for your printer now! \*\*\*

## COMPUTER LYNX MAGAZINE

Our exclusive action packed magazine ON A DISK!  
Demos, news, interviews, reviews and much more!  
WE CAN'T EXPLAIN IT ALL HERE; SEND FOR A  
TASTER!

Computer LYNX (latest issue)	£1.50
14 Issue subscription - including P&P	£22.00

## SOFTWARE

We can supply nearly all available software

We can virtually always get software not in stock  
within 24 hours if ordered before 3pm.

We will also match prices with our competition and  
in most cases BEAT those quoted by others!  
So if you want the best price you MUST call.

Cheque's/Postal orders payable to "NEW AGE COMPUTING". All prices include V.A.T.

POSTAGE & PACKING. Please add 50p for orders under £1.50,  
£1.50 orders up to £10. £2 orders above £10.  
Also add £5 on orders over £150 Insurance

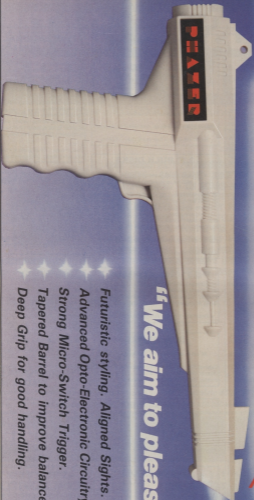
**PRICE MATCH!**

If you see any item elsewhere  
cheaper, we'll try to BEAT the price!

New Age Computing, Dept NCE, 187 Perrysfield Road, Cheshunt, Herts, EN8 0TL

Telephone (0992) 465366 / (0831) 820097. Fax: (0992) 450009

# TROJAN PHAZER



*"We aim to please"*

- Futuristic styling. Aligned Sights.*
- Advanced Opto-Electronic Circuitry.*
- Strong Micro-Switch Trigger.*
- Tapered Barrel to improve balance.*
- Deep Grip for good handling.*

- \* Free Software included in the Phazer pack.
- \* New Software titles available.
- \* Full manufacturers warranty.

Phazer packs available for:

Amiga, Atari ST, Commodore 64,  
Amstrad C.P.C. 464/6128, Spectrum  
+2,+3.

Available from all good computer  
retailers or contact Trojan Products.

**TROJAN**

Trojan Products, Unit 7, Dorlan Park,  
Llanelli, Dyfed, SA14 8LX.  
Made in the United Kingdom.  
Telephone: (0554) 777993  
Fax: (0554) 777994

(21) SUPS 009 1809 02